Dwelling with the Dead: Mortuary Landscapes and the Production of Community During the Prehistoric Bronze Age on Cyprus

by Eilis M Monahan

DWELLING WITH THE DEAD:
MORTUARY LANDSCAPES AND THE PRODUCTION OF COMMUNITY DURING THE PREHISTORIC BRONZE AGE ON CYPRUS

A Thesis

Presented to the Faculty of the Graduate School

of Cornell University

in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

by

Eilis M. Monahan

August 2010

ABSTRACT

The Prehistoric Bronze Age is a tremendously important period on Cyprus for understanding the later development of the island. During this period architecture, settlement patterns, technologies, and subsistence practices changed drastically, and of greatest interest to this thesis, the dead were buried in discrete cemeteries. It has been historically stated by scholars that these cemeteries were located outside, and within view, of the associated settlements. The recent publication of the excavations and surveys of several Prehistoric Bronze Age sites allows these assumptions to be tested, and their implications considered.

The shifts in settlement form and organization and in mortuary behavior clearly reflect major changes in the organization of society during this time period. By analyzing the various relationships between settlement and cemetery within the landscape, this thesis attempts to better understand the dimensions of variation and patterns of practice that shaped the changing society of the Cypriot Bronze Age. Using data from the excavations and surveys at Marki-Alonia, Alambra-Mouttes, and Sotira-Kaminoudhia, and the survey data from the Vasilikos Valley Project, as well as a reconnaissance survey undertaken by the author during the summers of 2008 and 2009, this thesis takes a behavioral and phenomenological approach to the PreBA Cypriot mortuary landscape, addressing four key aspects.

Placing the Dead encompasses the issues surrounding the choice of cemetery location, in the topographical sense, as it relates to the location of the associated settlement. While the expected pattern of spatial organization is shown to apply to some of the case studies, others challenge these assumptions. Viewing the dead considers intervisibility between settlement and cemetery, the viewing of the cemeteries being the most common, and likely daily, interaction between the living inhabitants of the landscape and the dead. Marking the Dead investigates the evidence

for the intentional and formal marking of individual burial sites. Such markers would have allowed individual burials to be relocated, prevented the inadvertent destruction of previous burials, and the way in which they were marked could have symbolic meaning. Finally, Visiting the Dead will consider the evidence for other activities that may have taken place within the cemetery, besides internments, including feasting, gaming, and even daily chores such as food preparation. These four aspects of human action taken together show that the mortuary landscape was neither static, nor empty. Instead, the mortuary landscape of PreBA Cyprus was dynamic and contested, where the inhabitants constructed and renegotiated their identities and their social organization.

BIOGRAPHICAL SKETCH

Eilis Monahan graduated from Bryn Mawr College in 2001 with a B.A. with Honors in Classical and Near Eastern Archaeology. She worked in several fields including video game design, museum exhibit production, and cultural resource management before returning to school in 2007 to pursue her MA in Archaeology at Cornell University. She has participated in excavations of historical and prehistoric sites in Connecticut, Colorado, Wyoming, Jordan, Cyprus, and Crete, and has done survey work on Cyprus and in Utah. Her research interests are focused on the Eastern Mediterranean during the Bronze Age, particularly the social changes and cultural exchange that occurred with the development of urbanism and long-distance trade.

For my dad

ACKNOWLEDGEMENTS

This thesis took an indirect route to reach its final state, and I would like to thank my committee here at Cornell University, and most especially my advisor, Prof. Sturt Manning (Classics), for their patience and assistance. Prof. Manning was always able to guide me in the direction of the sources that I needed, and encouraged me to question the data I had available to me in a productive manner. Prof. Nerissa Russell (Anthropology) has been a constant moral and academic support, reading drafts and providing the best advice. I would like to thank Dr. Chris Monroe (Near Eastern Studies), for agreeing to dabble in prehistory and giving invaluable advice on improving the organization of the final draft.

In addition to thanking the Archaeology Program at Cornell for the opportunity to study here, I would also like to thank the Departments of Classics and Near Eastern Studies, and their Chairs, Prof. Charles Brittain (Classics), Prof. Ross Brann (Near Eastern Studies) and Prof. Kim Haines-Eitzen (Near Eastern Studies) for providing me with a second (and third) home and the teaching opportunities that have funded my education. Likewise, I must thank the Mario Einaudi Institute for European Studies for the Foreign Language Area Studies grant to study Modern Greek in the 2008-2009 academic year.

For supporting my travel to Cyprus in the summers of 2007 and 2008, the Hirsch Fund for Archaeological Travel has earned my gratitude, as well as Prof. Sturt Manning and the other directors of the Elaborating Early Neolithic Cyprus project, Dr. Sally Stewart and Dr. Carol McCartney, for letting me participate in their project, housing and feeding me, and occasionally letting me borrow a car for my personal explorations. Similarly, I would like to thank the staff of the Cyprus American Archaeological Research Institute, particularly the director, Dr. Tom Davis, and

administrator, Vathoulla Moustoukki, for their invaluable assistance during my stays in Cyprus.

Several senior scholars in the field of Cypriot Archaeology have been most kind to me during the process of developing the project for this thesis and in producing the final work. Dr. Ian Todd and Dr. Alison South have been most helpful, taking their time to talk to me about archaeology on the island, and that of the Vasilikos Valley in particular. Prof. A. Bernard Knapp has also been a great source of encouragement and advice, as well as a sounding board for ideas. Also, several scholars were kind enough to grant me permission to reproduce figures from their publications, including Dr. Todd and Dr. South, and also Dr. Stuart Swiny (SUNY Albany), Dr. Andrew Sneddon (University of Queensland, and Dr. David Frankel and Dr. Jennifer Webb (Latrobe University).

Finally, I would like to thank my friends and family for being so supportive and loving during my time at Cornell; Margot, Ria, Scott, Erin, John, thank you for all the late phone calls and weekends away. There is no doubt you saved my sanity. And to my parents, you've been amazing; I love you both.

TABLE OF CONTENTS

LIST OF FIGURES

Part I – Introduction and Background[1]

A. Introduction

The landscape of Prehistoric Bronze Age Cyprus is more than just a scattering of cemeteries and settlements across hills and river valleys. People dwelled in that landscape, people who understood their world as all people do, as a network of relationships both between themselves and between their places. As these people enacted their daily lives, they made choices about where they would live and where they would place those who had died, and their actions left their mark on the landscape for archaeologists to see, and perhaps permit some insight into the social lives of the former inhabitants.

The Prehistoric Bronze Age is a tremendously important period on Cyprus for understanding the later development of the island. During this period architecture became rectilinear, settlements increased in size and number, new technologies were introduced or developed, subsistence practices changed drastically, and of greatest interest to this thesis, the dead were buried in discrete cemeteries. Scholars have repeatedly stated that these cemeteries were located outside, and within view, of the associated settlements,[2] but only in recent years has there been sufficient settlement data to allow the testing of these hypotheses.

The shifts in settlement form and organization and in mortuary behavior clearly reflect major changes in the organization of society during this time period. The goal of this thesis is to analyze the various relationships between settlement and

---

[1] This thesis contains previously copyrighted material, in the form of maps, photographs, and drawings. Permission to use this material was kindly granted by the original authors and copyright holders; Dr. David Frankel and Dr. Jennifer Webb (Latrobe University), Dr. Stuart Swiny (SUNY Albany), Dr. Andrew Sneddon (University of Queensland), and Dr. Ian Todd. All such figures were originally published by the American Schools of Oriental Research, or in *SIMA* by Paul Åströms Förlag, with full copyright retained by the original authors.

[2] Swiny 1989, 16; Swiny 1981, 79; See Steel 2004, 139; Keswani 2004, 39

cemetery within the landscape in order to better understand the dimensions of variation and patterns of practice that shaped the changing society of the Cypriot Bronze Age. Using data from three settlement excavation projects that were accompanied by surveys, and by one major regional survey project, and from a reconnaissance survey undertaken by the author during the summers of 2008 and 2009, this thesis attempts a behavioral and phenomenological approach to the PreBA Cypriot mortuary landscape, addressing four key aspects. These aspects are each discussed in separate chapters; Placing the Dead, Viewing the Dead, Marking the Dead, and Visiting the Dead.

Placing the Dead encompasses the issues surrounding the choice of cemetery location, in the topographical sense, as it relates to the location of the associated settlement. While the expected pattern of spatial organization is shown to apply to some of the case studies, others challenge these assumptions. Viewing the dead considers intervisibility between settlement and cemetery, the viewing of the cemeteries being the most common, and likely daily, interaction between the living inhabitants of the landscape and the dead. Marking the Dead investigates the evidence for the intentional and formal marking of individual burial sites. Such markers would have allowed individual burials to be relocated, prevented the inadvertent destruction of previous burials, and the way in which they were marked could have symbolic meaning. Finally, Visiting the Dead will consider the evidence for other activites that may have taken place within the cemetery, besides internments, including feasting, gaming, and even daily chores such as food preparation. These four aspects of human action taken together show that the mortuary landscape was neither static, nor empty. Instead, the mortuary landscape of PreBA Cyprus was dynamic and contested, where the inhabitants constructed and renegotiated their identities and their social organization.

B. Studying the Cypriot PreBA Mortuary Landscape

Visiting Cyprus, you are surrounded by history. Buildings from every period from the Crusaders to modern times still stand occupied, and every field you cross appears blanketed with the detritus of thousands of years of human occupation. This wealth of material has long attracted scholars and treasure-seekers, and with near continuous archaeological activity on the island for the past 150 years, at times it can also seem that no matter where on the island you go, you are never more than a stone's throw from an archaeological site, be it long abandoned or filled with the latest crop of field school students.

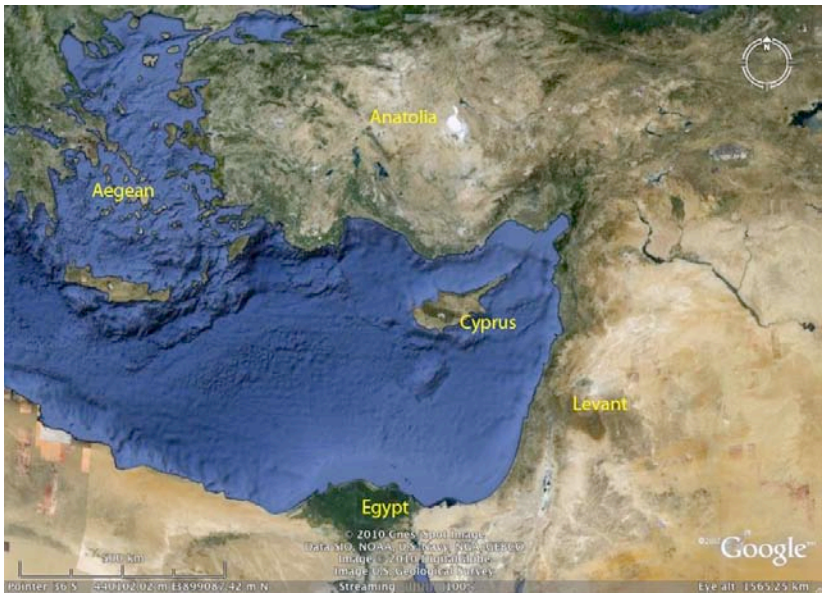


Figure 1 - Map/Satellite Image of Eastern Mediterranean

Current studies suggest that Cyprus has been settled by humans for at least 10,000 years, and after 10,000 years Cyprus is not only an island of history, it's an island of the dead. Cemeteries from every era literally litter the landscape, and unsurprisingly the excavation of necropolises dominated the early period of archaeology on Cyprus.

These early "excavations," however, were by modern standards largely no better than looting. Very few were properly recorded, and only a handful of tombs were published. Only intact vessels and artifacts were kept, while the human remains and broken vessels were discarded, and the attributes of the tomb left unrecorded, and thus the data they could have provided were irretrievably lost.

Luigi Palma di Cesnola, an archaeological enthusiast in the early 19th century, whose monumental collection of Cypriot material forms the basis for the collections at the Metropolitan Museum of Art in New York City, was able to proudly claim that he alone had opened 61,000 tombs from all across the island and from all periods.[3] One can only hope that such a boast is exaggerated, but Cesnola and Sir Robert Hamilton Lang, another erstwhile excavator, were criticized even at the time of their activities for the disregard they showed for any sort of proper technique.[4]

Fortunately later excavators weren't quite as cavalier in their operations, but the study of some periods of Cyprus' history continued to be based largely on what was found buried with the dead, and this is particularly true for the Early and Middle Bronze Ages. The earliest excavations of these periods were almost exclusively of cemeteries, and publications were of wildly varying degrees of quality. This alone would be troublesome, but there were also large regional biases in the data, which were collected largely from the northern coast and from which conclusions were then drawn and applied to the island as a whole. The pottery collected from those tombs

[3] Johnston 1878: 452-453
[4] Goring 1988

was, and still is, the basis for the typological analyses of the ceramic corpus and for the basic chronology of period.[5]

The study and excavation of settlements instead of cemeteries pose different problems to the archaeologist. Excavation of a settlement is far more labor and time intensive than the excavation of tombs, and less likely to uncover the kinds of intact elite material goods that will sell for a high price in the worlds' auction houses or display well in a fine art museum, and so for decades settlements were largely neglected. The Early and Middle Bronze Age may have received even less attention than other periods, due to the relatively small and unglamorous nature of the settlements, when compared to the Iron Age and Hellenistic periods, with their great cities and monumental constructions. In fact, until the 1970s the only excavation evidence that had been published for Early or Middle Bronze Age settlements was Einar Gjerstad's work at Alambra-Asproyi (now believed to be part of the larger site of Alambra-*Mouttes*) and Kalopsidha-*Tsaoudhi Chiflik*.[6]

In more recent decades efforts have been made to address some of these issues. Three Early and Middle Bronze Age settlements have been the subjects of excavation and publication; Sotira-*Kaminoudhia*[7], an Early Bronze Age site in the south; Marki-*Alonia*[8], an Early and Middle Bronze Age site in central Cyprus; and Alambra-*Mouttes*[9], a Middle Bronze Age settlement also in the central region. There is also a currently active excavation project at the settlement of Politiko-*Troullia*[10], and a new project to begin at Maroni-*Trelloukas*[11].

---

[5] Astrom 1972, Stewart 1962.
[6] Gjerstad 1926.
[7] Swiny 1985; Swiny et al., 2003.
[8] Frankel and Webb 1996a, 1996b, 1997, 1999, 2000, 2001; Sneddon 2002.
[9] Coleman et al. 1996,
[10] Falconer, et al. 2005.
[11] Georgiou 2008.

The three completed projects at Sotira, Marki, and Alambra, were also accompanied by surveys of the surrounding areas. Additional data about the Early and Middle Bronze age is also now available due to intensive regional survey projects, including the landmark exhaustive survey completed of the Vasilikos Valley[12], in the south, identifying and studying dozens of sites from all periods, and the more recent survey in the 1990s to the east, of the neighboring Maroni Valley. The publication of these projects gives archaeologists opportunities for answering old questions and posing new ones, providing a better understanding of regional variation, improved chronologies, and simply a far larger data set with which we can consider all aspects of prehistoric Cypriot life.

This is not to say that we should turn our backs on cemeteries. Within the past 40 years, some scholars have sought to use Cypriot Prehistoric Bronze Age mortuary data for more than simply descriptive purposes,[13] but the have all faced the same problems, which can be summarized with the following four critiques:[14]

- Mortuary data for the Prehistoric Bronze Age are far less complete or comprehensive as is commonly assumed.
- The available database (i.e. published in any usable fashion) is relatively small and unrepresentative of the island as a whole, as there are both regional and chronological biases.
- Intra-site and inter-regional analysis in inadequate, most likely due to the previous problems. In particular social and behavioral questions have been neglected.

---

[12] Todd, South, et al. *Vasilikos Valley Project, Vols. 1-11. SIMA* 71:1-11
[13] Namely David Frankel in the 1970s and 80s, J.B. Hennessy in 1973, and Jennifer Webb and Priscilla Keswani within the past 20 years. See discussion in Sneddon 2002:4
[14] Modified from Sneddon 2002:5

- Very few cemeteries have been excavated in conjunction with their associated settlements, so that intra-community comparisons of material (or other data sets) have not been made.

Much remains to be learned, and sadly the resources we have to study are dwindling. Even with the advent of modern scientific excavation and recording techniques, illegal looting has continued to be a problem, feeding the antiquities trade, and destroying countless more archaeological sites. Where once, as is clear by Cesnola's reports, Cyprus was covered with largely undisturbed necropolises, today archaeologists rarely find intact tombs, and even those tombs that have been looted are subjected to intense scrutiny in an effort to extract every scrap of data possible. Recently attempts have been made to reassess the available mortuary data, either what was obtained through the earlier excavations[15] or innovative new methods of extracting useful information from looted sites.[16]

The new data from settlement excavations and surveys, combined with the previous body of data from cemetery excavations allow a more holistic approach to the study of the Prehistoric Bronze Age on Cyprus. This period is of particular interest to archaeologists, as the transition from the Chalcolithic to the Early Bronze Age was marked by several major changes in the material culture, one of the most striking of which is the change in mortuary practice. In summary, during the earlier Chalcolithic period and Neolithic periods burials were to be found within the settlement itself, often directly underneath the floors of the houses. The transition to the Bronze Age sees the relatively abrupt end to this type of burial, to be replaced by the use of cemeteries or necropolises, known as extramural burial.

---

[15] See Keswani 2004.
[16] See Sneddon 2002.

Such a major behavioral change represents a corresponding shift in the way people conceptualized their relationship with the dead, and simply noting that the dead were buried outside of the settlements does not even begin to explain how or why these changes occurred or what they meant. While our knowledge of the Early and Middle Bronze Age on Cyprus has been greatly enhanced by recent excavations and research projects of both settlements and cemeteries, very little work has been done considering the settlement and cemetery together in the context of landscape and community, which potentially could provide a greater understanding of the changes in society at this time.

First, the form and location of the cemeteries must be considered in addition to how they relate to settlements and their inhabitants. As mentioned above, one reason that this research direction had not been pursued is that many more cemeteries are known than settlements, and in most cases the location of the settlement with which a cemetery is associated remained a mystery. The growing body of published data, particularly from intensive surveys that frequently accompany settlement excavation projects, allows us to begin to explore these relationships in a systematic way.

The methods and theories of landscape archaeology allow us to examine the locations of sites and the relationships between these locations. Site catchment studies have been done on settlements to investigate how and why a site location may have been chosen, and a similar approach can be taken with mortuary sites, and of course the location of associated settlement is a vital aspect of mortuary site catchment. Cemetery and settlement sites relate to each other within an inhabited landscape in different ways, including distance, travel time, and visual contact. These spatial relationships can be analyzed to look for patterns and in an attempt to extract meaning.

Figure 2 - Topographic map of Cyprus, produced with available DEMs

Geographical Information Systems (or GIS) are a powerful and popular tool to analyze just these sorts of relationships, but is important to note that GIS analysis not always feasible, necessary or even appropriate. Topographical data can be entered into a GIS as an image of a topographical map, but this then has the same limitations as occur with a paper map. The author concluded that the types of analyses desired for this project required higher resolution data than that currently available. [17] However,

[17] In order for the GIS software package to do calculations that depend on features of the topography (elevation, slope, etc), the data describing the topography is typically stored in a form called a DEM, or digital elevation model. Such a model is basically a continuous surface, made out of a grid of data points, representing the surface of the terrain. The resulting grid is called a raster data set, and the smaller the size of each raster, the more detailed the model of the terrain.
The original intent of this project was to construct a GIS that would allow the landscape of cemetery and settlement to be considered. However, the DEMs available for Cyprus, both those commerically available and those obtained from the Cypriot government, are derived from Quickbird Satellite imagery. Each raster point is ~70 m^2 and the vertical (elevation) resolution varies on how rugged the terrain is, but is usually about 25m. An experimental GIS of one site was built using this data, and it was determined that any attempts to consider viewscapes, catchments, or other spatial relationships

careful consideration of what non-digital data were available suggested that worthwhile and meaningful quantitative and qualitative analysis might still be performed using published measurements, or those easily performed with a map or the powerful and free tools provided by GoogleEarth. It was also realized that experiential data (such as that provided by written descriptions and photographs), collected by either the sites' original investigators or by the author, would support a more qualitative approach, hopefully producing a better understanding of how the ancient inhabitants may have understood the landscape than possible through computer algorithms.

To this end, all of the sites considered in this thesis were visited during the summers of 2008 and 2009 during a reconnaissance survey for this project (Figure 3). The sites and the landscape were seen and photographed first hand and then confirmed by map. Some observations are thus objective (distances measured on a map or satellite photograph) and others are subjective (what features are landmarks, how difficult the terrain), while others are arguably both (intervisibility). However, such first-person experiential data seems most appropriate to the phenomenological approach adopted in the analysis, wherein landscapes are *not* maps, but places inhabited and experienced by people.

---

would require higher resolution digital geographical data. Another data set with sub-meter vertical resolution was kindly made available, but the horizontal resolution of the rasters was of marginally higher resolution, with each raster representing an area of ~50m^2. When an area to be studied is only 4 square kilometers this results in a grid that is only 20 x 20 rasters, effectively obliterating many of the features in a landscape, particularly one as rugged as Cyprus.

Figure 3 – Map of Cyprus with locations of sites used as case studies

Examining the published landscape data, in conjunction first hand observations, has allowed several issues surrounding the location of cemetery and settlement and social interaction in the landscape to be addressed, and it is proposed that through these we can pursue a greater understanding of mortuary behavior and belief, and the construction and conception of community in the prehistoric Bronze Age Cypriot landscape. To this end, the investigation focuses on the sites of Marki, Alambra, Sotira, and the Vasilikos Valley, as all four have modern and well-published data for both the settlements and associated cemeteries from the Early and Middle Bronze Ages. This selection has also has made possible the comparison of geographic variation, both between individual sites as well as between the south (Vasilikos and Sotira) and central (Marki and Alambra) regions, with some mention of cemeteries in the north (the previously well-published Vounous and recently investigated Deneia cemeteries).

C. Background

1. Archaeology of Prehistoric Bronze Age Cyprus

The archaeology of Cyprus, and the Bronze Age in particular, has been a subject of scholarly study for well over a century. The Late Bronze Age on Cyprus, contemporary with the floruit of the New Kingdom in Egypt, the Hittites in Asia Minor, and the Mycenaean Palaces in the Aegean, became a major focus of study following the 1974 invasion of Cyprus by Turkey. It is during the Late Bronze Age that Cyprus is seen as first becoming a major player in the eastern Mediterranean, and the Hellenizing influence seen in material dating from this period made it particularly appealing to scholars in the Greek-speaking Republic of Cyprus, which in the years immediately following the war was struggling to reaffirm its identity in the face of the newly occupied and Turkish-speaking north (Figure 4). The support of the Cypriot government along with the frequent characterization of Cyprus in the Late Bronze Age as a "crossroads" of the region, or as a "melting pot" of Near Eastern and Aegean influences and cultures only helped fuel international scholarly interest in Cypriot "protohistory."[18]

[18] After Knapp, 1994.

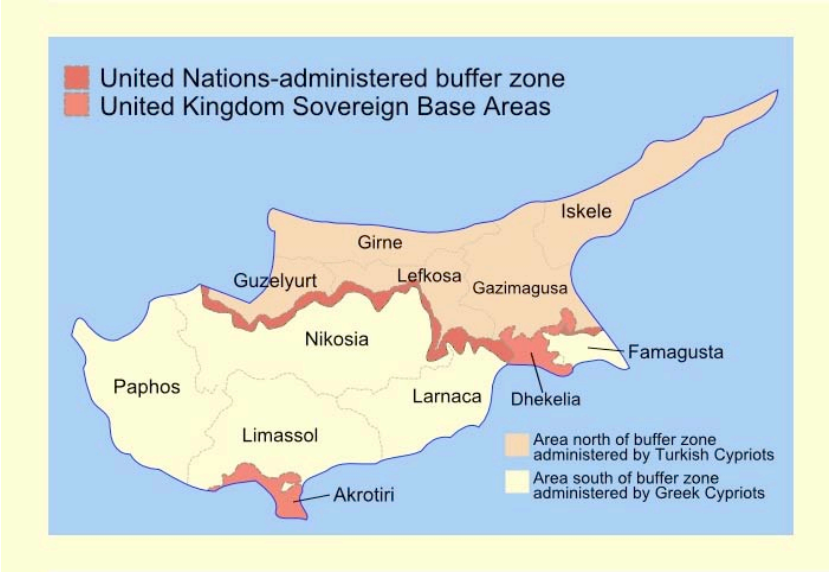


Figure 4 - Map of Cyprus with modern division between the Republic of Cyprus and the Turkish Republic of Northern Cyprus

The term "protohistory" reflects the fact that it is during the Late Bronze Age that the first significant body of written evidence appears for the cultures of the Eastern Mediterranean littoral, though textual evidence directly pertaining directly to Cyprus or found on the island has remained minimal. Nevertheless this period, with the rise of urban polities, the appearance of large temple and palace structures, and a dramatic increase in overseas contact and trade, has captured both the popular and scholarly imagination. Study and debate concerning this period have been focused largely on issues of population movement (immigration and colonization vs. acculturation), politics (kingdoms and palaces), economics (the export of copper, and elite maritime trade), and the dramatic increase in social complexity that is believed to have contributed to, or been the result of, the other cultural changes.[19]

[19] Knapp, 2008.

The earlier phase of the Bronze Age, i.e. the Early and Middle Bronze, or simply the "Prehistoric" Bronze Age[20] received a good deal of attention in the first half of the century, most notably in the work of Einar Gjerstad and the Swedish Cyprus Expedition. Following the 1974 invasion though, there was a lull in scholarship with only three major excavation projects published. Energies had been largely directed towards research on both earlier and later periods, and as a result, only recently has there been sufficient material to allow certain questions to be addressed.

This earlier phase of the Bronze Age is undoubtedly of tremendous importance, not only because it lays the foundations for the development of Cyprus as a major player during the Late Bronze Age, but because it, too, represents a major break in the development of Cypriot society. During the transition between the Chalcolithic and the beginning of the Bronze Age, the archaeological record attests to dramatic changes in nearly all aspects of society. Subsistence, settlement, and mortuary practices all change significantly, which has inevitably led scholars to propose explanations of colonization or other major population movements, though more recently processes of acculturation or hybridization have also been proposed.[21] However, within these developments also lie the seeds of what would later become the urban efflorescence of the Late Bronze Age, evidence that the great power and wealth of later Cypriot society may be largely due to internal development, and not just the external influence of the other major powers of the Eastern Mediterranean.

2. Chronology and its Problems

Scholars have had difficulty agreeing upon definitions, dates, or even nomenclature for the Cypriot Bronze Age and its component phases. The most

[20] After Knapp, 1994.
[21] Frankel, 2005; Knapp, 2008: 103-104; 105-110 (Migration); 111-114;

commonly used nomenclature and the basic relative chronology began with Einar Gjerstad's pottery classification, developed during his doctoral work, and first published in 1926 as his *Studies on Cypriot Prehistory*,[22] and further elaborated during his work with the Swedish Cyprus Expedition from 1927-1931.[23] This pottery sequence was based on the same tripartite system being used elsewhere in Europe and Asia, dividing the Bronze Age into Early, Middle, and Late Cypriot (to make them distinguishable from the Bronze Age sequences on the mainland), with each period divided into subperiods (I-III) and the Late Cypriot subdidivided yet again into 8 (LCIA and B, LCIIA-C, LCIIIA and B).

Gjerstad's system, and the further developments by James Stewart as published in the 1962 Early Bronze Age volume of the *SCE*, is still used largely unaltered by archaeologists working all over the island, despite increasing appreciation for the problems inherent within this relative chronology. Gjerstad and Stewart's Bronze Age pottery sequence was based largely on pottery recovered from mortuary contexts, a limited number of cemeteries in the very north and northwest of the island, with only the excavations of one Early Cypriot house at Alambra-Mavroyi, one sounding at Alambra-Mouttes, and one Middle Cypriot house at Kalopsidha to provide stratigraphic confirmation.

The ceramic data from mortuary contexts are complicated by the fact that tombs in the cemeteries excavated by the Swedish Cyprus Expedition had often been used for multiple burials, possibly spanning generations, which could result in a blurring of chronological distinctions. In addition, the types and frequency of wares deposited within a mortuary context may not accurately reflect what would be found in a coeval settlement. Lastly, the ceramic sequence is based on data obtained from a

---

[22] Gjerstad 1926.
[23] *SCE*, published as 4 volumes from 1934-1972.

relatively small and limited geographical area, which introduces significant sampling errors when applied to the entire island, where one might expect to see regional variations.

In fact this has proved to be the case, as attempts made to apply the *SCE* ceramic sequence[24] to the finds from stratified settlement excavations in the central and southern regions of the island have proven to be seriously problematic. Gjerstad's typology defines the Early Cypriot by the presence of Red Polished (RP) wares and the Middle Cypriot by the additional presence of White Painted (WP) wares, but evidence now indicates that there is significant regionalization in the ceramic corpus, in both stylistic and temporal dimensions. Excavations at the south coastal settlement site of Episkopi-*Phaneromeni* demonstrated a distinct lack of White Painted wares during the Middle Cypriot.[25] Based on the results of the excavation, Ellen Herscher instead identified several regional fabrics and concluded that most RP on the south coast should actually be dated to the Middle Cypriot.[26]

This theory also proved to be only partially correct, and resulted in some further confusion. The Vasilikos Valley Survey, an intensive survey in the 1980s of a river valley on the south coast, located many sites with a wide variation in RP wares. In response to the conclusions from *Phaneromeni,* all of these sites were initially identified as Middle Cypriot. This resulted in the Early Cypriot seemingly vanishing from the region entirely,[27] and debate continued for over two decades as to the explanation, with suggestions including the Chalcolithic Period lasting longer in the south or regional depopulation during the period. However, recent analyses of RP

---

[24] Later modifications made Stewart, *SCE* IV:1B 1962.
[25] Weinberg 1956; Carpenter 1975.
[26] Herscher 1981.
[27] Todd 1986, 1988.

ceramics from tombs in Kalavasos village in the Vasilikos Valley[28] and tombs in the Maroni Valley immediately to the east,[29] have shown that the EC is present, merely in a different form than in the north, and have allowed the dates of many sites in Southern and Central Cyprus to be reconsidered.[30]

As more data have become available from the excavation of stratified sites as well as mortuary contexts, the situation has improved, and a more nuanced understanding of the regional variations in the ceramic corpus is developing. More data would still be highly beneficial, particularly from the excavation of further stratified settlements on the south coast,[31] where the preponderance of evidence indicates that Gjerstad's ceramic chronology is insufficient, but a satisfactory replacement has not been fully developed and adopted. However, using what new data have become available, the dates of many southern sites have already been adjusted, allowing more confidence in comparative studies using data from these excavations and surveys.[32] In such cases where redating of sites considered in this study has been proposed, the most recently available chronological assignations were used.

In order to assign actual dates to archaeological materials, relative chronologies must be associated with "absolute" chronologies, where numeric values have been assigned for the date range of each period. Early absolute chronologies for Cyprus were built using the presence of imported and exported goods in funerary contexts to establish links with other, more fixed chronologies in the region, such as the Egyptian king list. In 1994, using the limited number of available high-precision calibrated radiocarbon dates from stratified settlement excavations and some tombs, a

---

[28] Todd, *VVP X,* forthcoming.
[29] Georgiou, unpublished dissertation, 2006, currently in press. Also Todd, *VVP X*, forthcoming.
[30] Ibid.
[31] Todd 2009, 17.
[32] Georgiou, 2006, unpublished dissertation. In this dissertation Georgiou reconsiders the dating of a large number of Early and Middle Cypriot sites (both settlements and cemeteries) throughout Cyprus.

working absolute chronology was built for prehistoric Cyprus by Sturt Manning and Bernard Knapp,[33] which is still used with relatively minor modifications.

Because only the most recent settlement site excavations have provided the necessary carbon for dating, as of 1994 there were only 16 radiocarbon dates on which to base the absolute chronology for the entire prehistoric Bronze Age on Cyprus. In the years since the article reporting this chronology was published relatively few major additions have been made, with only some dates obtained by the excavations at Marki-Alonia[34] contributing directly to the PreBA, and a few from excavations in the Maroni Valley for securing the dates for the beginning of the Late Bronze Age.[35] It should also be noted that all the radiocarbon dates for these periods came from a small selection of excavations in the central and southern regions of the island, a notable contrast with Gjerstad's ceramic typology and chronology, which was based on material from the north coast. Thus, the absolute chronology of the south has been linked with the tripartite divisions of Gjerstad's age system by the relative dating of the ceramics in the same contexts as the carbon samples were collected by the original excavators. However, the problems with the unilinear and "overconstructed techno-typological divisions" of the traditional chronology provoked Knapp to propose a new, less cumbersome nomenclature for the Bronze Age, that more closely reflects the cultural and societal changes seen in the archaeological record.[36]

While the shift from the Chalcolithic to the EC is generally agreed to be easily recognized in the archaeological record,[37] Knapp has argued that outside the ceramic corpus, the progression from the EC to the MC is a smooth one, with a lack of any

---

[33] Knapp, et al. 1994, 382-390.
[34] Frankel and Webb 1996, 28.
[35] Manning et al. 2001, 334.
[36] Knapp 1994, 276.
[37] e.g. Frankel 2005; Knapp 2008, 66-69;

defining changes in material culture that would allow a clear division to be made.[38] He saw the division of time based on nothing but a ceramic sequence as artificial, and accused it of masking other discontinuities in culture that were significant, while also forcing a unilinear and uniform view of development onto the whole island. Instead of the traditional tripartite divisions of EC, MC, and LC, Knapp's system divides the Bronze Age into two sub-periods: the Prehistoric and the Protohistoric.[39]

Knapp describes the transition between these two periods as a change from a culture of isolated, relatively unranked villages to a complex society focused on urban polities, as "more discontinuous than any other time in Cypriot prehistory…"[40] He sees this separation between the Prehistoric and Protohistoric Bronze Ages as a division with real social significance, in contrast to an arbitrary ceramic division.

Knapp's Prehistoric Bronze Age (PreBA) coincides roughly with the conventional EC and MC, with the addition of the Late Chalcolithic, and the subtraction of the final Middle Cypriot. The PreBA is subdivided in turn into the PreBA 1, equivalent to Late Chalcolithic through the EC II, and the PreBA 2, which begins with the conventional ECIII and continues through MCII (Figure 5). In traditional chronologies the Philia Phase was set aside as a separate period between the Chalcolithic and the Bronze Age,[41] but obvious cultural continuities invite its inclusion in the Bronze Age designation.

---

[38] Knapp 1990, 154.
[39] Knapp 1994, 274.
[40] Ibid., 271.
[41] Knapp 1994, 271.

Relative (terms)		Absolute
Revised/Knapp	Traditional/Gjerstad	Dates BC
PreBA		2700-1650
PreBA 1	Late Chalcolithic	2700-2500
	Philia Phase	2500-2400/2350
	Early Cypriot I-II	2400/2350-2000
PreBA 2	Early Cypriot III - Middle Cypriot II	2000-1700/1650
ProBA		1650-1100
ProBA 1	Middle Cypriot III-Late Cypriot I	1650-1450
ProBA 2	Late Cypriot IIA-IIC	1450-1250
ProBA 3	Late Cypriot IIC-IIIA	

Figure 5 - Comparison of traditional and revised chronologies

The Protohistoric Bronze Age (ProBA) is also fairly consistent with the traditional LC, but some changes should be noted. The MCIII/LCI transitional period are considered together as the ProBA 1, while the ProBA 2 are ProBA 3 are largely equivalent respectively to LCII and LCIII, which marks the final phase and collapse of the Cypriot Bronze Age.

The divisions proposed by Knapp are not related to changes in ceramic typology, though they have been associated with the ceramic typology and its designations through the association with the Traditional chronology, but they are instead founded on a broader understanding of the changes in material culture and social life, which are perhaps more appropriate criteria, but are also not so chronologically precise. However, as the changes in ceramic typology do not coincide neatly with the other major societal transformations, and how these developments within the ceramic corpus vary across the island are not fully understood, it seems to the author best to use the broader designations of Prehistoric and Protohistoric Bronze Age whenever scientifically obtained dates or the results of more recent ceramic analyses were unavailable.

3. Chronological Divisions Used in this Study

The site communities that are being considered in this study have all been dated to the Prehistoric Bronze Age, or the EC/MC. Marki-*Alonia* is most likely the earliest, having confirmed Philia Culture levels in the settlement and at least one cemetery having Philia burials, and would coincide with Knapp's PreBA I. Alambra-Mouttes, also located in central Cyprus at the intersection of the Troodos Mountain foothills and the Mesaoria plain, is dated MCI/MCII, or PreBA II. Sotira-Kaminoudhia on the southern coast is only confirmed to have an ECIII occupation, placing it in the early PreBA II, but the earlier dates assigned to several of its tombs, suggest that an early occupation may be present, but as yet undetected. The sites identified by the Vasilikos Valley Project, also in the south, which originally were all dated to the MC or Pre BA II, have recently been given dates that range throughout the EC and MC, covering the breadth of the Prehistoric Bronze Age.

For the purposes of this study, the dates assigned to sites by their investigators are accepted, but the most recent dates available are used, particularly in the case of the sites of the Vasilikos Valley. These dates are expressed using the terminology of the tripartite system, so Early and Middle Cypriote with subdivisions into I, II, and III. When discussing cultural or social change the term Prehistoric Bronze Age, and the division between early (Pre BA 1) and late (PreBA 2) are used, recognizing that this division is more meaningful than the arbitrary ceramic derived dates.

Because mortuary and settlement data from Prehistoric Bronze Age as a whole are still limited, using too fine a resolution in data would preclude intersite comparisons, and possibly obscure meaningful observations. For this reason, and taking the broader divisions proposed by Knapp as a cue, during the analysis data will often be grouped together to allow comparisons to be made. Thus, data from the Philia and Early Cypriot I/II are considered as one group, the PreBA 1, and the more

numerous data from the later portions of the Prehistoric Bronze Age being are considered as belonging to the PreBA2. In the very few instances where tomb were assigned an ECII/III date by the original investigators, the earlier date has been chosen and the tomb has been assigned to the PreBA I data set. This is largely arbitrary, but also because evidence suggests that tombs were frequently reused so the earlier date is more likely to indicate the date of construction.

4. Before the Bronze Age

The major cultural and societal changes at the start and end of the Prehistoric Bronze Age on Cyprus can only be understood in the context of the subsequent and preceding periods. The Chalcolithic, or Copper Age, which preceded the Bronze Age, also began with some major changes, including a break from the settlement patterns of the Neolithic, the first evidence for copper metallurgy, and apparent increased social cooperation in the form of communal food storage and feasting. During the Chalcolithic, settlement appears to be focused in the calcareous lowlands surrounding the Troodos massif in the southwestern portion of the island,[42] but the earliest phase of the Chalcolithic Period is only represented by a handful of investigated sites, with insubstantial architecture,[43] and very little evidence for formalized treatment of the dead (Figure 6).[44]

More is known about the Middle and Late Chalcolithic, as more sites have been investigated and these phases have left more substantial remains. Evidence from the Middle Chalcolithic period suggests an increase in population density, with more

[42] Steel 2004, 83.
[43] Steel 2004, 84; Peltenberg 1993, 12.
[44] Peltenberg et al. 1982, 59; Todd 1991, 6.

and larger settlements with extensive architectural remains, and significant innovations in burial practices. Circular structures, interpreted as houses were built with stone foundations and pisé superstructures, and evidence for communal food storage vanishes, suggesting a focus on the household as the primary unit of social organization.[45]

Figure 6 - Map of Cyprus with Chalcolithic settlements

During the Middle and Late Chalcolithic periods, large numbers of burials are found within the settlements, as had also been common during the preceding Neolithic. Unlike the Neolithic, these burials are associated with, but found outside, the walls of individual houses.[46] In the instance of the earlier Middle Chalcolithic level of Kissonerga-*Mosphilia* (3a) it appeared that some households (as identified by the presence of a single house structure) were grouped in pairs with a shared discrete

[45] Steel 2004, 89
[46] Peltenberg et al. 1985; 1998;

burial area between them, which the excavators interpreted as reflecting the development of property rights, also attested by the disappearance of communal storage areas and increased expenditure on feasting and food presentation.[47]

Extramural cemeteries, defined as discrete groups of tombs located outside of a settlement, are also known from the Middle Chalcolithic, though the spatial relationship between settlement and cemetery during this period is not known, as neither of the two known Middle Chalcolithic cemeteries is clearly associated with a specific settlement.[48] The tombs located within the settlements were simple shallow oval pits, sometimes discovered with capstones sealing them,[49] but those in the extramural cemeteries were rock-cut shaft tombs that sometimes held multiple burials.[50] Evidence is also known for secondary inhumations, with bones gathered and pushed to the side to make room for new burials. Peltenberg has suggested that some burials were exhumed when a tomb became full, possibly explaining the disarticulated human bone found in some areas of the *Mosphilia* settlement.[51]

e. The Late Chalcolithic, the Philia Facies, and the Early Bronze Age

The transition from the Chalcolithic to the Bronze Age on Cyprus was a dramatic one. Nearly every aspect of Cypriot society and culture underwent major transformations, from architecture to subsistence strategies, technology to treatment of the dead. In addition to the transition being clearly visible in the material culture, this transitional period is also characterized by a gradual shift in settlement pattern, as the earlier Chalcolithic sites are largely abandoned and new settlements are established.

---

[47] Peltenberg at al. 1998, 242-243
[48] Christou 1989; Peltenberg et al. 1998, 85
[49] Christou 1989, 85
[50] Peltenberg et al. 1985, 43-44; 1998, 68-70.
[51] Peltenberg 1992, 31

Previous research has largely framed the changes in terms of contact or influence, or even migration from, mainland Anatolia.[52] These changes, however, do not simply appear abruptly at the beginning of the Early Cypriot or Early Bronze Age, but are recognized by many scholars as a more gradual process that began during the Late Chalcolithic. For this reason, in Knapp's new terminology the first phase of the Prehistoric Bronze Age, the PreBA1, includes the periods known in the traditional terminology as the Late Chalcolithic and Early Cypriot, as well as encompassing the difficult to define Philia facies or culture.[53]

Some aspects of Late Chalcolithic culture show distinct continuity with the proceeding Middle Chalcolithic, though again conclusions are limited by having only two excavated settlements with occupations during this period; Lemba-Lakkous and Kissonerga-Mosphilia. Round houses were still built, but at Mosphilia the houses now appear to be grouped in clusters, suggesting to the excavator a shift in the society's organization. Some scholars think that communities were now broken down into extended households, represented by these house clusters,[54] that were linked together through kinship in the male line.[55] There is also evidence, in the form of the so-called "Pithos House" at Kissonerga-Mosphilia, for large-scale communal food storage, beyond the needs of a single household, which may represent the beginnings of central storage and redistribution[56], or significant disparities in wealth (Figure 7).[57]

---

[52] Webb and Frankel 1999, 4.
[53] Knapp 2008, 71.
[54] Swiny 1989, 21; Bolger 2003, 35-36.
[55] Peltenberg et al. 1998, 151
[56] Peltenberg et al. 1993, 15.
[57] Peltenberg et al. 1998, 252.

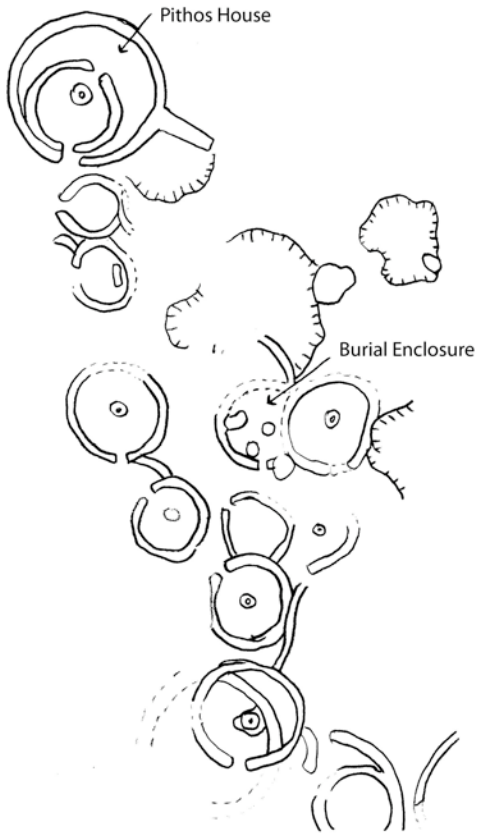


Figure 7 - Plan of Kissonerga-Mosphilia (Phase 4) with Pithos House and Burial Enclosure (from Peltenberg 1981, fig. 39)

Of particular significance to the subject of this thesis are the changes in mortuary practice that are seen in association with the appearance of Philia facies cultural material during the Late Chalcolithic, most notably the appearance of the rock-cut chamber tomb. The majority of archaeological sites on Cyprus with Philia material are in fact extramural cemeteries, but the very earliest use of the chamber tomb is possibly to be seen in Kissonerga-Mosphilia's Period 4. During this phase and associated with the appearance of Philia material in the settlement are intramural chamber tombs. These tombs consist of a roughly circular shaft leading downwards to one or two small oblong chambers (Figure 8).

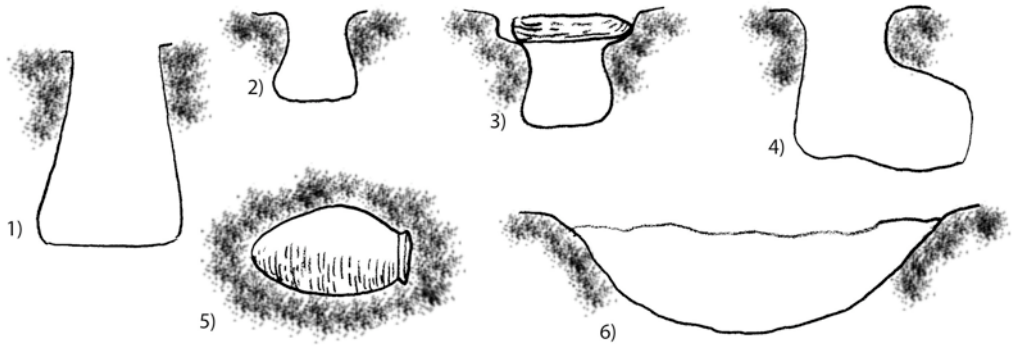


Figure 8 - Chalcolithic Tombs: 1) shaft tomb, 2) pit tomb, 3) pit grave with capstone, 4) chamber tomb, 5) pithos burial, 6) scoop grave. (1: from Christou 1989, fig. 12.3, 2-6: from Peltenberg 1998, fig. 4.1)

Evidence indicates that only adults were buried in chamber tombs while children were buried in rough scoop-shaped pits. Also, no extramural cemeteries have been found from the period, nor is there evidence for secondary funerary treatments, but an intriguing development in the spatial configuration of burials is also to be found at Mosphilia. Within a palisade, demarcated by ten postholes, a group of six tombs was found, possibly representing a lineal descent group.[58] Though the excavators noted no correlation between the use of chamber-tombs and higher quantities of prestige goods,[59] the far greater investment of energy in the form of the tomb itself, and the burial enclosure may represent the emergence of social hierarchy or complexity that continues through the Bronze Age on Cyprus,[60] the beginnings of which are possibly marked by the appearance of the Philia facies.

The Philia Facies, or sometimes phase, is a problematic assemblage of material that appears during the Late Chalcolithic – Early Cypriot transition. To some, the

[58] Peltenberg et al. 1998, 46
[59] Peltenberg *et al.*, 1998: 91
[60] Steel, 2004: 116

limited geographical extent of sites identified as having Philia material has suggests that Philia material may represent a bounded regional culture, most likely originating in Anatolia, rather than an island-wide phenomenon. Indeed, the very term "facies" indicates this ambiguity.[61] As with most Bronze Age material on Cyprus, our early understanding of the Philia facies was based on cemetery excavations in the north, but excavations of settlements with stratigraphic Philia components have added a great deal to our knowledge in the last decade.

Where the Philia facies is present it appears concurrently with the major changes commonly associated with the beginning of the Bronze Age. In addition to a new ceramic technology, distinctive mould-made copper artifacts of kinds previously unknown to the island, including jewelry, tools, and weapons are found, also indicating more extensive exploitation of the island's copper resources. Some of these metal artifact types appear to be unique to the Philia assemblage, but others are found in other Early Cypriot sites around the island without the entire Phila assmeblage.[62] Other distinctive artifact types, including spindle whorls and loom weights are associated with the Philia facies, for the processing of sheep or goat wool, and possibly most important for the development of Cypriot society, cattle are reintroduced the island, presumably in conjunction with plough agriculture.[63] The combination of all these factors has led this to be declared the moment of the "secondary products revolution" on Cyprus.[64]

The cemeteries containing Philia material were first found on the North coast of Cyprus. However, Kissonerga-*Mosphilia*, the Chalcolithic settlement site in the southwest contains Philia material in its final levels of occupation, as well as the

---

[61] Frankel 2005, 19
[62] Webb and Frankel 1999, 30-31.
[63] Sheratt 1981; Swiny 1997, 177-185.
[64] Manning 1993, 44-47.

chamber tombs first associated with Philia mortuary practice. The excavations in the 1990's at the primarily EC site of Marki-*Alonia* in the central Mesaoria Plain also found Philia material in its earliest occupation levels. This supports the supposition that the Philia culture may represent the transitional period between the Chalcolithic and the Bronze Age, and that Philia may be more ubiquitous across the island than previously suspected. A few radiometric carbon dates have been obtained, though not directly from Philia levels, suggesting a range of 2500-2400 B.C. for the appearance of the Philia facies in the north and west of Cyprus.[65]

The dearth of Philia material from the south and east of Cyprus is still not understood, though a paucity of field research projects in the east portion of the island is a likely contributing factor. However, it is increasingly recognized that the development of the Bronze Age may have taken different courses in different regions of the island. The excavators of Marki-*Alonia*, the Bronze Age settlement with the most well known Philia occupation, themselves refrain from referring to Philia as a "phase," preferring to see it as a culture. Not only are the cattle presumed to have come from the Anatolian mainland, but the concurrent appearance of multi-roomed rectilinear architecture, and parallels in ceramics and personal ornaments have led Frankel and Webb to suggest that the Philia facies represents an immigration or colonization from Anatolia.[66] Another piece of evidence supporting the Anatolian source of the Philia culture is the use of pot or urn burials. Though this type of burial was common in Anatolia throughout the Chalcolithic, this burial-type only occurs four times on Cyprus, and always in conjunction with Philia material; once in the northern

[65] Webb and Frankel 1999, 5; Manning 1993, 36-37.
[66] Webb and Frankel, 1999, 39-40.

cemetery of Philia-*Laksia tou Kainou*, once at Marki-*Alonia*, and twice at Kissonerga-*Mosphilia.*[67]

The spread of Bronze Age material culture, or the so-called "Bronze Age package," in parts of the island with no known proceeding Philia material has been attributed to acculturation. Though it is certain that the change in technology is dramatic, several aspects of which having no clearly recognizable local precursors,[68] and some regions taking longer to modify their habitus to the new technological and social developments.[69]

6. Settlement and Cemetery in the Prehistoric Bronze Age

In addition to the material culture changes described as part of the Philia facies, another feature of the Prehistoric Bronze Age was a shift in settlement pattern accompanied by what appears to be a steady and massive increase in population, resulting in a far greater island-wide population density by the end of the MC. Hundreds of sites have been identified from this period, though it is understood that many of them would not have been occupied for the duration. Many of the identified sites are also cemeteries, but the perceived pattern of relationship between cemetery and settlement during the Bronze Age has resulted in the conclusion that cemeteries must be associated with and near to a settlement.[70]

It is true that during the Prehistoric Bronze Age we see the use of extramural cemeteries almost exclusively, and often clearly separated from settlements. It has been stated that cemeteries were located within just a few hundred

---

[67] Peltenberg *et al.* 1998, 72; Frankel and Webb 2000, 764; Frankel and Webb 2000b, 68-70; Dikaios, 1946, 244-245.
[68] Webb and Frankel, 1999, 41-43
[69] Frankel 2005, 20
[70] Swiny 1989, 16

meters of the settlement with which they were related, though in cases where the settlement remains undiscovered (e.g. the cemeteries at Deneia or Vounous), Stuart Swiny has suggested that the distances may be greater.[71] It is also assumed that the cemeteries were placed within sight of the settlement.[72] These assumptions have been often repeated, but never explicitly investigated or challenged, so issues concerning cemetery location, especially as it relates to settlement is a primary focus of this thesis' investigation.

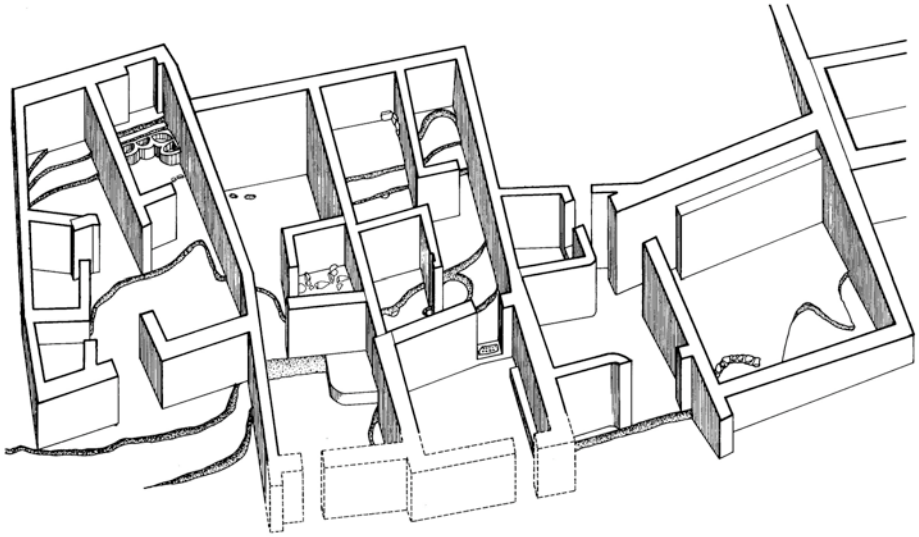


Figure 9 - Isometric reconstruction of the rectilinear domestic architecture from Area A at Alambra-Mouttes (Coleman 1996, frontispiece)

Settlements may have grown in size and density compared to the proceeding Chalcolithic settlements, but those that have been excavated remain quite small, only in the 2-3 ha range. This has resulted in the seemingly larger settlements (15-20 ha, in some cases even as large as 70 ha.) identified through survey being interpreted by many scholars to be a discontinuous pattern of homesteads or houses,[73] though no

[71] Swiny 1981, 79.
[72] See Steel 2004, 139; Keswani 2004, 39.
[73] Swiny 1981, 78; Personal communication with A. Bernard Knapp, Jun 23rd, 2009

such settlement pattern has yet to be identified through excavation, or they are thought to simply not be nearly as large as the artifact scatter seems to indicate.[74] Within the settlements there is a remarkable shift to the exclusive use of rectilinear agglomerative architecture, in contrast to the preceding periods' round houses, which inevitably results in a dramatic change in the internal organization of the settlements (Figure 9). Overall settlements of the PBA are considered by the excavators to be small, egalitarian agrarian villages, with no marked signs of internal social differentiation or specialization in production.[75]

Exploitation of copper resources continues and intensifies during this period, possibly associated with the overall increased expenditure of energy and resources on mortuary ritual.[76] Settlement expands in the metalliferous zone surrounding the Troodos massif, in areas where the volcanic soil of the mountains meet with the coastal calcareous soils and copper is more readily available near the surface. The three excavated PreBA settlement sites, as well as those identified in the survey of the Vasilikos Valley, that are investigated in this study are all found in this zone. The cemeteries at Deneia, in contrast, are centrally located in the northern Mesaoria plain, suggesting the settlement or settlements associated with these cemeteries were not directly involved in the mining of copper. Also, with the exception of the large cemeteries found on the north coast, little evidence for habitation has been found immediately adjacent (ca. 2-3 km) to the coastlines, resulting in the conclusion that exploitation of maritime resources and trade was not a priority at this time, and what maritime trade was occurring was concentrated in this northern region.[77]

---

[74] Manning 1993, 39-40.
[75] Swiny, et al. 2003, 5.
[76] Keswani 2005, 388-9; Knapp 2008, 80-81.
[77] Steel 2004, 128; Gjerstad 1934; Stewart and Stewart 1950; Herscher 1978; Keswani 2004, 63-71.

The issues of spatial organization, settlement patterning, and mortuary ritual touched on in this brief overview are the primary concern of this thesis. The shifts in settlement construction and mortuary behavior clearly reflect some major changes in social organization. The goal of this thesis is to analyze the various relationships between settlement and cemetery within the landscape in order to better understand the dimensions of variation and patterns of practice that shaped the changing society of the Cypriot Bronze Age.

7. Looking Towards the Protohistoric Bronze Age

There is no significant evidence for the colonization of Cyprus at the start of the Late Bronze Age, yet once again Cyprus clearly undergoes some radical changes in its social, political, and economic organization. The Late Bronze Age in the Mediterranean was a time of empires and trade, and Cyprus was strategically placed geographically (central to the Eastern Mediterranean basin) and economically (as a prime source of copper) to play a major role in the region. Textual sources from Mari, Babylon, Ugarit, Amarna and Boghazkoy all name a kingdom called *Alashiya,* which scholars have identified as Cyprus or a portion thereof, as a source of copper and as a significant participant in regional trade and politics, all of which is supported by the discovery of Cypriot artifacts recovered across the Mediterranean, as well as evidence from the excavation of the Uluburun Shipwreck off the coast of Turkey that carried a cargo of elite trade goods that included Cypriot artifacts and copper oxhide ingots.[78]

The apparent importance of Cyprus' role in the region during this period is matched by a tremendous increase in population on the island, with expansion of settlement across the island and development of a complex settlement hierarchy,

---

[78] Pulak 2001

headed by urban settlements that included monumental ashlar architecture in structures interpreted as administrative centers or palaces. This urbanization appears to have began in the north in ProBA 1 with major settlements at Enkomi to the east and Morphou-Toumba tou Skourou to the west and in the south with urban settlements known at Hala Sultan Tekke, Maroni-Vournes, Kalavassos-Ayios Dhimitrios, and Kouklia-Palaepaphos. Inland urban centers, the role of which is still poorly understood, include Ayios Sozomenos and Alassa-Paleotaverna (Figure 10). In many cases earlier settlements were abandoned, possibly through circumstances of violence or illness, suggesting a period of turmoil resolving into the more hierarchical and complex social organization characterized by Late Cypriot settlement pattern.[79]

Figure 10 – Map of Cyprus with Protohistoric (LBA) urban centers mentioned in text

[79] Knapp 1997, 43

In his seminal 1962 article, "Patterns of settlement in Bronze Age Cyprus," H.W. Catling presented a three-tiered hierarchy of settlement in the Late Cypriot Period. Besides the urban settlements, understood to be coastal, Catling proposed categories of inland agricultural settlements and copper production centers, which he saw as all reflecting the economic organization of the time period. Forty years later, Priscilla Keswani similarly divided settlement categories functionally, but proposed a four-category system with urban centers, inland sanctuaries, agricultural villages, and mining sites.[80] Knapp also has proposed a four-tier settlement hierarchy, though his tiers beneath the urban settlements are more explicitly hierarchical. He outlines secondary "towns" and tertiary "sanctuaries" defined by their political/administrative and ceremonial functions. Beneath these, he places the production focused settlements, including agriculture, mining, and ceramic production, which are grouped together as tertiary settlements.[81] Significant to all these analyses is the recognition of both a hierarchy of settlement size and specialization in settlement function, in contrast to the preceding Prehistoric Bronze Age, understood to have a settlement pattern undifferentiated in size, production, or authority.[82]

The matter of authority in the Protohistoric Bronze Age on Cyprus is a topic that remains greatly contested by scholars. While there is clear evidence for both hierarchical and heterarchical stratification within individual settlements and between settlements within a region,[83] the debate continues about whether any one urban settlement exercised political authority over all or even a majority of the island at any one time. During the transitional MCIII-LCI period, or the Knappian ProBA1, a hierarchy of settlements develops with the appearance of specialized fortified sites

---

[80] Keswani 1993
[81] Knapp 1997, 48-61
[82] Catling 1962, 142-143
[83] Keswani 1993

along the north eastern Karpass peninsula, the southern slopes of the Kyrenia range, and the northern slopes of the Troodos massif, which some scholars see as delineating a protected route between the copper-rich Troodos and the coastal site of Enkomi.[84] Though the purpose of these forts remains poorly understood, Peltenberg suggested that these sites are actually an expression of early state formation, with the early emergence of Enkomi as the pre-eminent urban center for the centralized exploitation of the copper resources in the Troodos,[85] an idea that has been advanced by subsequent scholars.[86]

Despite this argument for socio-political centralization focused on Enkomi in the earliest stages of the ProBA, other major Late Bronze Age urban centers have evidence for ProBA1 occupations. Mortuary evidence from the sadly minimal excavations at Morphou-Toumba tou Skourou indicated an MCIII occupation, with the earliest excavated phase of the settlement dated to the LCIA and IB,[87] and Maroni-Vournes on the south coast has both architectural and ceramic evidence for significant LCI occupation.[88] Other urban centers have scant settlement evidence for ProBA I occupations, though it might easily be obscured by subsequent construction. However, excavations at Hala Sultan Tekke produced large enough quantities of ProBA I ceramics in trenches 15 and 15A, for the excavators to conclude that a ProBA1 settlement must have been present,[89] and several LCI-II tombs are known in the areas surrounding Kouklia-Palaepaphos[90], Kalavassos-Ayios Dhimitrios[91], and Alassa-

---

[84] Merillees 1992; Keswani 1996, 219;
[85] Peltenberg 1996, 30-34.
[86] See Knapp 2008.
[87] Vermeule and Wolsky 1990, 9, 23-29; Eriksson 2001, 55.
[88] Cadogan et al. 2001, 77.
[89] Astrom and Nys 2001, 61.
[90] Catling 1979; Maier and von Wartburg 1985, 146-148.
[91] South and Steel 2001, 65-66

Paleotaverna,[92] suggesting the presence of ProBA1 occupations preceding the known architectural evidence. These occupations may have been at the same locale, or nearby.

The evidence for urban sites dispersed across the island from even the earliest stage of the ProBA with no one site clearly primate, has led many scholars to disagree with the idea of a unified island polity at any period of the Protohistoric Bronze Age. Priscilla Keswani has argued for multiple polities operating simultaneously with regionally expressed authority especially in the ProBA2 and 3, and with different political structures of varying degrees of centralization (hierarchical structure as seen in Kalavasos, Maroni, and Alassa) and competition (more heterarchical structure seen in Enkomi, Hala Sultan Tekke, and possibly Kition) and similar ideas have been advanced by several other scholars.[93] Others have argued that authority in the ProBA was perhaps not political in origin, but primarily economic, exercised by local elites who were entrepreneurial merchants.[94]

The increase and variation in forms of social complexity seen in the settlement pattern and architecture of the Late Bronze Age is also apparent in the mortuary record. Variation in tomb architecture, furnishings, and location increases dramatically. A complex of prestige goods, particularly including trade goods, appears in conjunction with elite burials, clearly a form of status symbolism.[95] While the use of extramural cemeteries continues during this period, primarily in the rural areas, a new pattern of tomb placement emerged with the elite and other groups instead constructing their tombs within the bounds of the new urban settlements. Several of the most elite burials were found within the monumental administrative complexes in

---

[92] Hadjisavvas 1994
[93] Keswani 1993, 1996, 2004; see also Smith 1994; South 2002: 65-68.
[94] Merillees 1992; Manning and DeMita 1997; 107-108; Hadjisavvas 2002.
[95] Keswani 1989; 2004.

the urban centers, while other tombs have been found associated with residences or manufacturing complexes.[96] In this period rock-cut chamber tombs continue to be the most common type of burial facility, and regional variation is seen in the forms of construction, but overall a gradual decrease is seen in the size of the tombs, as well as an increase in the number of burials indicating a higher rate of reuse.[97]

The issues surrounding mortuary ritual and the development of social complexity on Cyprus have already taken up and skillfully addressed by Priscilla Keswani in several of her publications, but never from an explicitly landscape-focused perspective.[98] Therefore, this paper addresses the mortuary landscape, particularly as it relates to settlement patterning, during the PreBA, in the hopes that it may contribute some insight into the course of the development of urban society and political complexity seen on ProBA Cyprus.

[96] Keswani 2004, 86-87
[97] Ibid., 188
[98] See Keswani 1989; 1996; 2004

D. Archaeology and the Geography of Death

1. Understanding Landscape

We are the children of our landscape; it dictates behavior and even thought in the measure to which we are responsive to it. – Lawrence Durrell[99]

Issues of geography, space, and inter and intra-site relations are subjects of increasing interest in archaeology, with work in recent decades seeking to combine traditional geographical studies with a new symbolically meaningful discipline. Christopher Tilley has spearheaded this new approach, rejecting the older approaches as setting in opposition concepts of geometry and context, and objectivity and subjectivity.[100] Others also adopted his critique, and introduced their concerns over the use of concepts such as visible and invisible and material and mental.[101]

In traditional geography space is an independent object that can be measured, classified, and described objectively by math and science. Space is neutral, and remains so until filled with cultural structures, such as power, communication, ritual, and religion. "New" geography considers these features, approaching space as a social construct that is produced and reproduced by human experience and action. Space is thus experienced and understood differently by different people and groups.[102]

Human Geographers, such as Yi-Fu Tuan, have become interested in the human perception of space and awareness of place. If perception is the filter between the actual outer reality and our inner mental image of that reality, it suggests that landscape can be investigated through its physical quantitative and Cartesian values,

---

[99] Durrell 1991, 41
[100] Tilley 1994, 8
[101] Cosgrove 1998
[102] Mitchell 2000, 61-62; Ashmore and Knapp 1999, 12.

but that meaning and culture is entirely in the mind of the beholder.[103] Tim Ingold describes this view of culture as "an arbitrary symbolic framework built on the surface of reality."[104] Ingold proposes that instead of viewing perception as an intercessor, perception of landscape is actually imbedded in the lived experience of the land, and that nothing intervenes between the individual and the world she inhabits. The objects and the land that we encounter during daily life are not apprehended as data to be interpreted, but instead are comprehended directly as meanings, which are learned through tradition and personal experience.

The problem with both of these views is that they completely internalize culture. The outward expressions of culture, the physical material that surrounds our lives, is stripped of all intrinsic meaning, and culture instead becomes a matter of interpretation, as described by Tuan, or comprehension, as proposed by Ingold. This definition of perception also suggests a certain failure; an incomplete experience or disclosure of our surroundings, as our perception and the physicality of our bodies limits what we perceive. This suggestion can be taken one step further, proposing that landscape doesn't just provide the background for meaning, but instead is the medium through which meaning is expressed and experienced.

Landscape is a network of meaning, with all knowledge and memory interconnected, and gathered together in nexuses called places. This network is one that we constantly view, experience, and that is taught to us from birth by other members of our society. This network of meaning provides shape to our lives and forms our understanding of personal experience. Landscape is a physical manifestation of our lives and our society, encompassing action and experience, both by containing and preserving the physical effects of human activity, and as the natural setting and

---

[103] Tuan 1979, 90
[104] Ingold 1995, 66

repository for human memory. Thus landscape does not allow comprehension, but dwelling in the landscape actually *is* our comprehension. It is what shapes and defines us, producing our identities. By passing through and dwelling in the landscape, we encounter and apprehend our own lives.

The concept of "dwelling," introduced by Heidegger, and popularized in archaeology by Ingold, among others, is concerned with this qualitative idea of the lived space vs. the quantitative idea of geometric space. A lived space, wherein dwelling occurs, is concerned with the ideas of direction and closeness, rather than specific coordinates and distance.[105] Heidegger has argued that closeness is an emotionally defined idea, not constrained by actual physical proximity. The places in which we dwell are much larger than the space we occupy at any one time, but instead are relational concepts.[106] Ingold says that in the landscapes in which we dwell, "each component enfolds within its essence the totality of the relations with each and every other."[107]

This means the space in which we "dwell," or live our lives, is actually a network of places, or even multiple layers of networks, and that each place has meaning and the relationships between places have meaning. This can be imagined as somewhat akin to a mathematical surface, where every point on the surface has a value, which is directly and constantly related to all other points on the surface. This is true as well for landscape, as every point that our bodies can inhabit; every view upon which we can look is imbedded with meaning.

These meanings in the landscape are developed through human memory, habitual activity, interactions, and specific events, which together make up what

---

[105] Ingold 1993, 154
[106] Heidegger 1971, 157
[107] Ingold 1993, 154.

Ingold calls the "taskscape" of human lives. The difference between the taskscape and the landscape, is that the taskscape is intrinsically temporal, and is created by the movement of people engaged in activities, or "tasks." These tasks are the constituent acts of "dwelling." Humans pass through the taskscape with the passage of time, just as they pass through the landscape with motion in space, and the landscape is a constantly evolving embodied form of the taskscape.[108]

The landscape is also the context for our daily lives, incorporating both our lived reality and all potential realities, the mundane physical aspects of our existence, as well as the metaphysical and the idealized, and so our landscapes create our identity. However, this is a reflexive relationship. People create the physical and ideational landscape by our actions and experiences (the taskscape), while the landscape creates the identity of the people as a repository of memory and the context of our dwelling, in a hermeneutic cycle of production and reproduction.[109] To summarize, landscapes are not just mirrors of human behavior, but are contested and powerful cognitive instruments, in which human agents can negotiate and reproduce their identities.

2. Archaeology of Landscape

Material culture is often considered to be the primary focus, or at least the main source of evidence, for archaeological investigation. Ian Hodder has proposed four ways in which material culture can be meaningful; emotional value, aesthetic value, a discursive meaning, and functional meaning. When he proposed this he was discussing architecture and social space[110], and these four categories clearly also hold

[108] Ibid. 157-161
[109] Tilley 1994, 17.
[110] Hodder 1994, 73.

true for landscape. Landscape both contains and *is* the material culture of humans' daily lives. Settlements, structures, paths and agricultural fields, not to mention cemeteries, are all creations of human agency, but are also are a part of the landscape. The form of these built features is also the embodiment of a historical process, and they are concrete remains of human dwelling the world.

Humans also exercise agency when choosing where to build, where to travel, and where to perform different activities. Whether these choices are economically or socially determined, they are still choices, the outcome of which are not predetermined but are actively made by the practice of both routine and extraordinary activities. This means that even the natural aspects of the landscape, the setting or terrain of human action also represents human choice, memory, and action, and must also be considered part of what makes up a given culture or society.

As Bleda During says, "Material culture may be both the outcome and the mediator of social practice, but so is non-material culture."[111] And so the lived-in landscape of a society is also the outcome and a mediator of social practice, and as such should be considered a vital feature of culture, and as meaningful. Roland Fletcher argues that material culture provides a framework within which daily life occurs, but it can also restrict or obstruct human behavior, by acting as a barrier to sight and sound.[112] This clearly also holds true for landscape, both the constructed and the natural features, as it is the primary framework of all human activity.

What the landscape means to a particular culture or society, however, can only be determined contextually, as it is unsafe to assume any cross-cultural universal rules of human-landscape interaction. Ingold has said that, "the landscape is the world as it

---

[111] During 2006, 26
[112] Fletcher 1995, 3-6.

is known to those who dwell therein."[113] However, he does not mean to say that comprehension of the ancient landscape is not accessible to the archaeologist. He states that, "the practice of archaeology is itself a form of dwelling. The knowledge of this practice is thus on par with that which comes from the practical activity of the native dweller… for both the archaeologist and the native dweller, the landscape tells – or rather *is* – a story."[114]

The archaeologist must ask questions about what meanings the landscape and human agency within the landscape (or the taskscape) have for society and what these material interactions with the landscape can tell us about the society. The landscape must be experienced, and must be approached it as an inhabited qualitative and heterogenous landscape, not just as quantitative and homogenous space. This approach coincides with the phenomenological approach above, which attempts "to make explicit the truth of the primary experience of the social world,"[115]

Knapp and Ashmore have outlined four themes within landscape archaeology, all of which are related to the concept of dwelling; landscape as memory, landscape as identity, landscape as social order, and landscape as transformation.[116] Any attempt at a more comprehensive analysis of how landscape is used and conceived of by a society should address all four of these concepts.

The temporality of landscape is one of its more commonly noted features, and has been discussed above. The landscape acquires meaning through a process of incorporation, whereby the landscape is continuously becoming what Ingold has called, "the congealed form of the taskscape,"[117] As human activity occurs, that

---

[113] Ingold 1993, 156
[114] Ibid., 152
[115] Bourdieu 1977, 3.
[116] Ashmore and Knapp 1999, 13-19
[117] Ingold 1993, 162.

activity leaves its impression in the landscape, sometimes fleetingly only as memories in those who directly lived the experience, or passed down to future generations as story or myth, but sometimes the activity leaves a very concrete impression in the form of built features or other physical impacts. Also, any time an act (or behavior) references an earlier act we have patterning, and all patterns can be understood to be traces of memory.[118] If we understand that the landscape is the embodiment of human activity and time, then through our own dwelling in the landscape and observing of patterns in the landscape we can come to understand the world of those who have dwelled in it before us.

The concept of landscape as memory greatly contributes to the concept of landscape as identity. However, in addition to the landscape embodying the memories of individuals and groups, it also is the venue in which people interact and often the focus of these interactions. Political and cultural identity can be recorded in the landscape, and where the landscape has been tangibly marked, for example through construction of a building or a tomb, this identity-building aspect of landscape may be enhanced, both through memory and as a sense of belonging or possession.

If landscape maps or physicalizes memory and identity, then it also can display the shape of society, not just spatially but conceptually. Knapp and Ashmore caution against western notions of hierarchy, but suggest looking at "nested landscapes." Different kinds of social relations and power structures, including family, politics, gender, and age can all be related to the use and understanding of space and place, and these multiple landscapes can all be mapped onto and over each other and the physical landscape.

---

[118] Kovacik 1999, 167.

Lastly, landscape as transformation refers to how the landscape is usually seen to embody continuity. Changes in human behavior often result in physical transformations of the landscape, and so often transformations in society leave visible residues within the landscape. Thus, landscape studies can allow us to see these transformations and can even give clues to underlying causes.[119] As Ingold, has said, the landscape is "an enduring record of…the lives and works of past generations who have lived within it."[120]

The most obvious data that archaeologists can reliably project into the past are, in fact, the physical attributes of the landscape, and the locations and attributes of human-built modifications. We have access to these data through maps, GIS data, archaeological survey and excavation, and environmental studies. However, these are all abstractions of the landscape. Instead, we need to use these data in conjunction with our own observations of the landscape to try to understand how the land would have been perceived or experienced by the people living in it.

Making sense of human behavior other than our own, which can often be difficult enough, would require us to experience as fully as possible the lives of the people being studied. Ideally, we could attempt an understanding of the lived experience of a prehistoric group by visiting the sites under investigation and spending significant amounts of time within the landscape being studied so that we could experience the locale through our own body and senses. If this option is unavailable, we may also make use of our imagination, which we can direct productively towards aspects of life that we can reasonably conclude would be part of people's daily experience. The validity of our imagination is strengthened by collecting as much empirical knowledge as possible of the landscape being investigated.

---

[119] Ashmore and Knapp 1999, 17-18.
[120] Ingold 1993, 153.

Then we must apply our theoretical understanding of the significance of landscape. Landscape itself carries meaning, and landscapes, especially the built features but also their "natural" aspects, are all part of material culture, which is inseparable from the broader concept of culture. By understanding the landscape to be a kind of material culture, we can look for it to carry the same meanings proposed by Hodder. Several approaches might be taken here. A structural approach could look for patterning in specific behaviors to try to determine their meaning. A contextual approach, which is particularly well suited to landscape studies, would look at patterns of human behavior in the broader setting of their context (the landscape), and as related to other human behaviors (the taskscape), in order to elucidate meaning or explanation.

While we can assume that the landscape does not determine human behavior, it certainly contributes to its form. The modern landscape, which we can view, carries within it a record of human activity and practice, the remnants of previous landscapes. We know that humans dwelled within these landscapes, and by looking at the surviving aspects of their culture within the landscape we can see ways that they interacted with the landscape during their daily lives. William Norton in his discussion of Cultural Geography lists nine factors that influence behavior within a landscape: prior experience, individualism, group membership, institutional considerations, goals, environment, links to other groups, mental image, and attitudes/beliefs,[121] all of which are of interest to archaeologists. Human behaviors and their possible meanings can then be compared to look for larger patterns. By setting the recreated taskscapes within the observed landscapes, and comparing their forms, patterns may emerge that

[121] Norton 1989, 80.

will allow the archaeologist to better understand the social lives of landscape's inhabitants.

3. Understanding Death

Know that Death is a debt we all must pay. - Euripides[122]

Death may be universal, but the responses it invokes are innumerably varied. These reactions though are always meaningful and expressive, and as such have been a focus of anthropological inquiry. Metcalf and Huntington, in their *Celebrations of Death,* argue that such an endeavor is worthwhile because, "Life becomes transparent against the background of death, and fundamental social and cultural issues are revealed."[123]

In the nineteenth century, the studies by early English anthropologists Edward Burnett Tylor and James Frazer were concerned with the formation of primitive religion, which they saw as largely arising from the human contemplation and rationalization of death.[124] In the early twentieth century, considering the subject of death from the opposite direction, the French sociologist Emile Durkheim and his students became concerned with how "collective representations," such as religion, united individuals within a society.

Robert Hertz, one of Durkheim's students, published an essay in 1907 on the collective representation of death. His study focuses on the phenomenon in some societies of double burial, wherein a body is buried or stored for a period of time before the final burial rites are performed. Hertz observed that the intermediate period between death and final burial in many societies represents a belief in death as a

---

[122] Euripides, *Alcestis*, line 416.
[123] Metcalf and Huntington 1991, 25
[124] Tylor, 1878; Frazer, 1890

transition, not an instantaneous destruction. This intermediate period is also the period of mourning, which ends with the final ceremony marking the transition of the soul of the dead to the afterlife and the reestablishment of normal relations among the community, thus releasing and reintegrating all participants (both the dead and the survivors) from death.[125]

Another seminal work of French sociology, Van Gennep's *The Rites of Passage*, was published two years after Hertz, and it too was not translated into English until 1960. In it Van Gennep took a much broader view, and postulated that many significant stages in an individual's life, such as birth, coming-of-age, marriage, and death, are frequently marked by a society with rites or rituals of separation, transition, and (re)incorporation.[126] In his analysis, separation involved the handling of the physical remains of the person after death, including display, storage and disposal. Transition was the passage or transfer of the spirit of the deceased to the afterlife, and incorporation was the installation and acceptance of the deceased into a new status in the community.[127]

It took several decades for these works to receive widespread attention, and for the first half of the twentieth century human society and behavior were largely explained by anthropologists and archaeologists using a functionalist approach. Functionalism views the society as pre-eminent, and all social systems as environmental adaptation. In this worldview, funeral ritual reaffirmed the social bonds among the survivors and strengthened the political authority of the rulers through the reintegration of the society.[128]

---

[125] Hertz, 1960 (trans. orginal text, 1907)
[126] Van Gennep, 1960 (translation of original work, 1908): 10-11
[127] Ibid., 161.
[128] Pader, 1982; See Malinowski, 1948; Radcliffe-Browne, 1952 and 1964; Evans-Pritchard, 1948

The foundational model for the structure of mortuary ritual and its social significance laid out in the works of the French sociologists gained attention later in the century, and has continued to be elaborated on ever since their publication in English. Scholars now consider funerals not only as religious rites, but also as secular ones, wherein individuals and groups perform or mark their roles in society, and also as an opportunity to renegotiate them. Jack Goody was one of the first to adopt the models of the *Année sociologique* school, but he also adds the contributions of the study of human psychology by Sigmund Freud, which he saw as "focusing attention upon the conflict situations inherent in any personality system."[129] Then examining the mortuary behavior of the Lodagaa of West Africa, he demonstrated how variation in mortuary practice was not only determined by the roles of the individuals, but by conflict among the vested participants in the funeral and by a tendency in that society to disguise status variations in funeral rites.[130]

Clifford Geertz used the example of a modern Javanese funeral to demonstrate how a ritual may become an arena for social conflict, resulting from conflicting identities and the incongruence between culture and society.[131] Metcalf and Huntington discuss how expenditure of wealth and effort on mausoleums by the Berawan in Borneo, may not reflect the status of the individual being honored, but instead the desired status of the family member who demonstrates his authority through its construction.[132]

Of particular significance to the research undertaken in this thesis, is the study by Maurice Bloch of the Merina of Madagascar. Here collective monumental tombs gather together kin who never lived together on ancestral land that they no longer

---

[129] Goody 1962, 30
[130] Goody 1962
[131] Geertz 1973, 142
[132] Metcalf and Huntington 1991, 144-151

inhabit. He argues that this behavior is a way the Merina culture is dealing with the realities of modern society, creating their identity and reintegrating themselves with the society of their ancestors. "The Merina act as they do because of the way in which they see the world and by this means they create it…[he] is not just returning his dead kinsman to the ancestral fold, he is creating the ancestral fold."[133]

4. Archaeology of Death

Mortuary rituals are a society's structured response to death. For decades archaeological study of mortuary remains focused on the description, classification, and chronology of the culture, as mortuary variability was largely seen as an expression of cultural belief. It was not until the early 1970s, with the 'New Archaeology', that archaeologists began to consider the social dimensions of mortuary practices, which they believed were a direct reflection and might be used to reconstruct social structure.[134]

The modern social approach to the analysis of mortuary material in archaeology was first attempted by Saxe in his unpublished dissertation, and his and others' submissions to the subsequent volume, *Approaches to the Social Dimensions of Mortuary Practice*, edited by Brown. In the article submitted by Saxe to that volume, he sought to outline methodologies and test hypotheses that would allow archaeologists to relate social structures to mortuary variability. A year later Lewis Binford wrote an article addressing similar issues,[135] and both concluded that the relationship between mortuary behavior and sociopolitical organization was

---

[133] Bloch 1971, 216
[134] Silverman 2002; Barrett 1996; See Brown 2007 for a discussion of the implications of the 1966 symposium on the social dimensions of mortuary practice.
[135] Binford, 1972; Saxe, 1970

normative, allowing organizational structure and complexity to be determined by the analysis of mortuary data.

Saxe's thesis and article had presented 8 hypotheses for regularities underlying mortuary behavior. The first four were tested with only some success, and the next three were determined to be not adequately testable. Hypothesis 8, however, has remained enormously influential. It states that formal cemeteries, in contrast to dispersed graves, are more likely to occur when control of critical resources is contested. These formal cemeteries are created by lineal descent groups for their exclusive use in order to reaffirm group membership, and thereby legitimize corporate rights to control of resources.[136]

This was elaborated on by Goldstein, who a decade later observed that not all corporate groups with control of resources will have formal disposal areas, but if such areas are observed than the culture most likely has a lineal descent system. This conclusion is strengthened the more formal and organized the disposal area is. She also notes that the opposite also appears to hold true, and the less formal the area for disposal is, the more variability there is in terms of social structure.[137] Goldstein's work was also notable in its focus on the importance of spatial organization and her cognitive archaeological approach recognizes that the spatial principles of a society are both distinct and apparent, and that mortuary archaeology needs to include a landscape approach.[138]

O'Shea made explicit the formalist and determinist view of mortuary behavior presented by Saxe and Binford in his attempt to provide a unified theory of mortuary variability and behavior. In the introduction to his 1984 book, he presents various

---

[136] Saxe 1970, 119
[137] Goldstein 1976, 61
[138] Ibid., 58

applications of funerary analysis in previous archaeological research and states that, "Common to all these applications is the assumption that an individual's treatment in death bears some predictable relationship to the individual's state in life and to the organization of society to which the individual belonged."[139]

More usefully methodologically, O' Shea also identified what he called "classes of archaeologically visible mortuary variation," which were the material remains of mortuary behavior and through which variability is expressed. He divides these classes into six general categories, two of which are of use to this study. First is the category of Location, which he subdivides into three classes on the basis of scale: Macro - location of the disposal area (cemetery) relative to other "socially defined spaces;" Meso – spatial variation within a single disposal area; and Micro – spatial relationships within one "disposal unit." Related to this Microscale of location is the category of Mortuary Facility, within which O'Shea identifies four classes of variation: type, shape and dimensions, material and construction, and orientation.[140]

Three years prior to O'Shea's volume, another important collaborative work was produced called *Mortality and Immortality: The Anthropology and Archaeology of Death.*[141] The anthropological approach taken by the scholars in this volume considered mortuary ritual as a social phenomenon, developed to deal with the crisis of the removal of a social person from society.[142] While this volume included contributions from archaeologists, the anthropologists took the archaeologists to task for their conception of what was an adequate data sample when considering mortuary

---

[139] O'Shea 1984, 32-39
[140] O'Shea 1984, 39-41
[141] Humphreys and King 1981
[142] Humphreys and King 1981, 1-2

remains, and also for how archaeologists define a "site" as a unit of research.[143] Another important criticism of archaeological research made in this volume is against the tendency of archaeologists to focus on the material displays of social stratification or ranking and the frequent assumption that expenditure of wealth or effort on burial correlates directly with the individual's status in society.[144]

Robert Chapman raised similar concerns, but he suggests that complementary data (i.e. contextual) from settlements and other settings might be used to evaluate the degree to which social structure is reflected in the mortuary data.[145] He also saw great potential in multi-scalar studies of spatial patterning in mortuary studies, but urged consideration of symbolic factors in mortuary behavior, not just functional ones.[146] In his analysis of the appearance of 'formal disposal areas' (i.e. cemeteries or well-bounded areas for funerary disposal) in prehistoric Europe he continues the formalist attention on social and economic factors represented in mortuary remains, but he does note the danger in using the lack of evidence as an argument. He also proposes that change in the social system would affect the symbolism with which resource control is displayed, trying to construct a more nuanced approach to relating cemetery to social structure.[147]

Ian Hodder also criticized the formalist approach, declaring that the specific character of mortuary behavior cannot be adequately or even correctly explained in general or universal terms. Though this criticism has been raised again and again, this perspective, often referred to as the "Saxe-Binford" approach, remains the dominant

---

[143] ibid., 3; Though not explicitly in response to these criticisms, in his 1984 book O'Shea provides a thorough discussion of the archaeological site formation processes in a mortuary site, and the resultant limitations in detection and recognition of patterning. 23-31
[144] Ibid., 9
[145] Chapman and Randsborg 1981, 14
[146] Ibid.,17
[147] Chapman 1981, 80-81

framework for the interpretation of mortuary data in much Americanist archaeology.[148] The Saxe-Goldstein approach to the understanding of extramural cemeteries also has been accused of relying upon circular reasoning, wherein cemeteries are seen as evidence for corporate groups, corporate groups are understood to have a need to control access to resources, and then the cemeteries are explained as a result of the need of the corporate group to legitimize such claims. John C. Barrett cautions against attempts to analyze mortuary data to explain the social system, and then turning around and using the social system to explain the mortuary behavior.[149]

Likewise, Barrett also rejects the whole representationist argument, i.e. that there is a direct causal relationship between social identity and mortuary treatment, in favor of an understanding that the mortuary record is the expression of ritual performances wherein social structure is subject to manipulation. Human agency must be taken into consideration, as social roles can be accepted, denied, or amplified through praxis.[150] He argues, as has Ian Hodder, that cross-cultural generalizations such as the representationist argument fail to provide us any new insight about the groups being studied. Instead social systems must be recognized as being made up out of social practices; in this case, mortuary rituals. The living, not the dead, carry out rituals, but within these rituals the deceased becomes a powerful symbol by which the living can negotiate social roles. Likewise, rituals are acts, not objects, and it is these acts that imbue objects and places with symbolic meaning. He concludes of mortuary rituals that, "It is by the construction of these passages between life and death, within an architectural and topographical framework which may be constantly reused, that certain lines of inherited authority are observed or challenged."[151]

---

[148] Rakita and Buikstra 2005, 5; Barrett 1996, 394
[149] Barrett 1996, 395
[150] Hodder 1982; Morris 1987; Pearson 1984
[151] Hodder 1982, 398

Barrett uses this theoretical framework to consider Neolithic and Early Bronze Age mortuary practices in Britain. He points out that all archaeological sites, including cemeteries, are part of what he calls an "architectural landscape." Sites are focuses of activity, but are not permanent, as such activity does not remained constant or unchanged.[152]

Parker Pearson, in *The Archaeology of Death and Burial,* like Barrett and Hodder also takes a cautionary stance towards cross-cultural generalizations. He emphasizes practice theory, as defined by Bourdieu, in which roles and social personae are not pre-defined but are constantly changing, created by human action. He also discusses the role of agency, wherein social identities are open to manipulation by human intention behind action. He argues for a cognitive and contextual approach to the archaeology of death. [153]

In his discussion of the placing of the dead, Pearson, like O'Shea, also suggests methods to consider the landscape of death, though Pearson's are less scalar and more topical. First, he proposes to investigate the relationship between the living and the dead through topographical and spatial separation, and through the use of marked (culturally significant) places in the landscape. Second, he proposes that smaller-scale topography and features of the landscape, such as views, paths, and barriers, may provide insights into the incorporation of the dead into cosmology and social practice. And third, the built environment and material culture may also be examined.[154] He concludes that the disposal of the dead is generally not a matter of expediency, and that the sites chosen will have significant meaning within social geography. In

---

[152] Ibid. 399
[153] Pearson, 1999: 33
[154] Ibid.: 124

agreement with Saxe and Goldstein, he states that the placement of the dead is both a social and a political act with which claims to resources are made.[155]

Although disagreement remains as to what extent any generalization about mortuary behavior can be made, the study of mortuary behavior and the physical remains thereof found within the archaeological record still reveal patterns, which we can seek to understand through regional, contextual analyses. By setting mortuary behavior within the specific social, political, geographical, and economic contexts in which it occurs, changes in these patterns can illuminate the relationships between the contexts and the behaviors. Landscape studies are a particularly appropriate venue for investigating mortuary variability contextually. Mortuary behavior, the activities of humans relating to death and disposal, are parts of the taskscape, and thus can be seen in the landscape. By considering an experienced and inhabited (dwelled in) landscape, which includes both the places of the living and the dead, we can attempt a greater understanding of how, performing within the framework of their culture, a society and the individuals within it related to death and used it to construct their identities and their communities.

[155] Pearson, 1999: 141.

Part II – Case Studies

A. Method

Because the goal of this project was to gain a greater understanding of the relationship between cemetery and settlement in the landscape during the PreBA, and how humans interacted and experienced that landscape, a two-fold approach was used to gather and approach the data. Four case studies were chosen, based on the availability of recent publications that encompassed both cemeteries and settlements within what might be expected to be a single community or network of related communities. Sotira-Kaminoudhia, Alambra-Mouttes, and Marki-Alonia had been published primarily as settlement excavations, with accompanying surface surveys, regional surveys, and limited cemetery excavations. The Vasilikos Valley, in contrast, was the subject of an intensive large-scale survey.

All available published material on the chosen sites was read and maps and aerial photographs obtained or produced, using Google Earth. After a thorough literature review, the author visited all of the sites discussed in this thesis in person during the summers of 2008 and 2009, some on multiple occasions. The sites and the surrounding area were explored on foot, and photographs and notes taken to record personal observations relating to the inter- and intra-site physical and visual relations. A summary of the data collected is presented below, and then discussed in detail in Part III.

B. Marki-Alonia

Marki-Alonia is a settlement in the area of the modern village of Marki in central Cyprus, which was apparently a focus of activity and occupation in the region during the Prehistoric Bronze Age (Figure 11). Located in the lower foothills northeast of the Troodos Massif, Alonia was inhabited from the Philia Phase/Early Cypriot I up to the Middle Cypriot I, but during the later Middle Bronze Age, settlement in the area shifted to the site of Marki-Reximon, 1.3 kilometers to the west, and to Marki-Palioklichia 1.7 km northwest.[156]

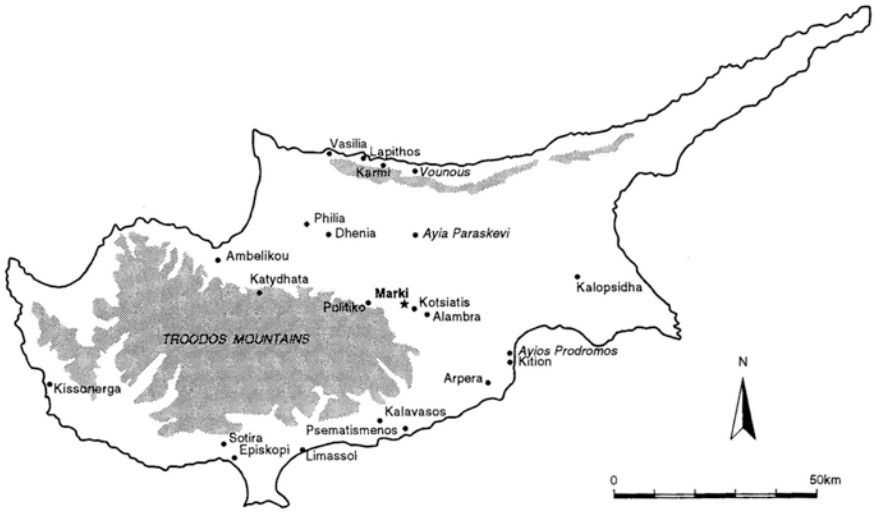


Figure 11 - Map of Cyprus with Marki and other relevant sites (Frankel and Webb 1996, Fig 1.1)

The excavated settlement site is located on the south bank of the Alykos River in a wide bowl-like valley, nearly fully circumscribed by hills, the base of which slopes gently to the north. The Alykos River is now deeply entrenched, having cut through several old river terraces, with an abrupt 10 meter drop from the settlement to the riverbed.[157] The river continues to erode the cliff away, and with it, the remains of

[156] Sneddon 2002, 13
[157] Frankel and Webb 1996a, 16

the settlement. The site's toponym refers to the twelve threshing floors (or *alonia*) that once covered this area.

Figure 12 - Google Earth image with Marki-Alonia, cemeteries, and soils.

The path of Alykos River follows the boundary between the igneous pillow lavas extending out from the Troodos Massif, and the chalky sediments of the Mesaoria, the central plateau of the island, placing the settlement right on this intersection as well (Figure 12). The lighter limestone soils immediately surrounding the settlement and to the east and southeast are easily cultivated, while the soils in the area of the pillow lava to the south and west are shallow and stony making the area largely unsuitable for agriculture. However, these igneous formations would potentially have been of significant mineral value, and deposits of copper are found 5-

10 km south of the Valley, in the areas of Lythrondondas, Mathiatis, Sha, and Ayia Varvara.[158]

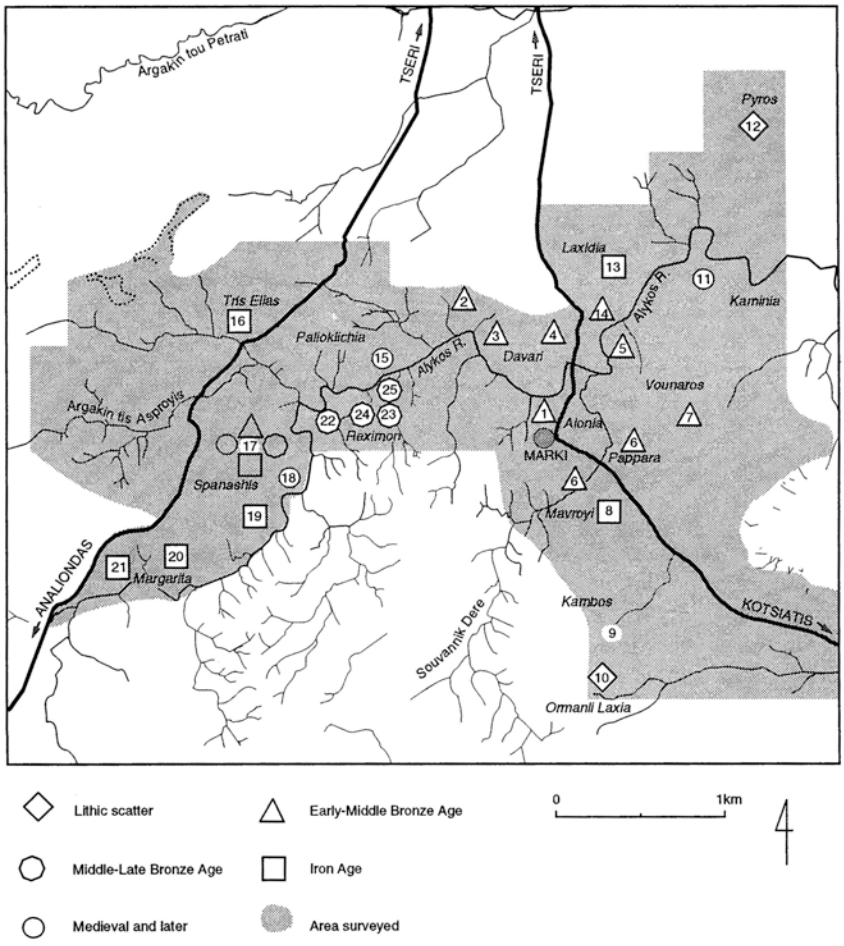


Figure 13 - Map from 1990 Alykos River Valley survey (Frankel and Webb 1996, Fig. 2.1)

The excavations at Alonia were preceded by an intensive survey in 1990 of the Alykos River Valley, in an area of approx. 13 sq. km. surrounding Alonia, following the river from the village of Kotsiatis to the east to Analiondas to the west (Figure 13). The survey identified or relocated 25 sites, of which six (the settlement of Alonia and

[158] Gass 1960, Frankel and Webb 1996a, 16.

5 cemeteries) were from the PreBA period and were of sufficient proximity to suggest a direct relationship. Two other possible sites, also in the same area and of PreBA date were identified, one potentially having a settlement component. However, development in the area has destroyed or covered them preventing further investigation,[159] so only the six previously mentioned will initially be considered for this study. These same five cemeteries were also the focus of a study published in 2002 by Andrew Sneddon, where intensive surface survey and analysis of the ceramics from three cemeteries were used to explore the potential of using the remains from looted mortuary landscapes as archaeological data sets.

Marki-Alonia (Settlement)[160]

The settlement at Alonia is estimated to have covered no more than 5-6 ha at its greatest extent, and to have been inhabited from the earliest Bronze Age, or the Philia Phase, through the early Middle Bronze Age. Excavation of the site revealed evidence for a complex system of construction and renovation during the site's occupation, as well as clear memory of previous structures during reconstruction suggesting that occupation was continuous, or nearly so, over the duration of the site, perhaps 500 years. [161] During the Philia period the excavators believe the community would have consisted of approximately fifty individuals, growing slowly until it peaked at about 400 in the early Middle Bronze (Figure 14).[162]

[159] Frankel and Webb 1996a, 6-8.
[160] Identified as Catling EC 109.
[161] Frankel and Webb 1999.
[162] Frankel and Webb 2006

Figure 14 - View across the excavations of the settlement at Alonia towards the cliffs to the north.

Marki-Kappara[163] (Cemetery)

This cemetery is approx. 750 m WNW of the main settlement at Marki. The cemetery survey completed in 1994 recorded 310 tombs or probable tombs, mostly located atop or along the sides of the ridge of the Kaparra, a spur that juts out from the limestone cliffs to the north of Alonia, though a few are below the edges of the ridge or along conjoining spurs (Figure 15). The survey reports that all of the tombs appear to be chamber tombs dug into the kafkalla (local soft limestone) or fanglomerate. No material from this cemetery can reliably be dated to earlier than ECIII. [164] In the publication of the 1990 Alykos Valley survey, Frankel and Webb note, "an unusual feature of this site is the presence of querns associated with individual tombs."[165]

---

[163] Both the Davari and Kappara cemeteries were relocated during the author's visits to Marki-Alonia. These cemeteries were very easy to spot in the landscape, especially when approached from the north, resulting in a spectacular downward view from the hills above of both the cemeteries and the settlement at Alonia. The openings of the looted tombs, particularly those near the top of the scarps are very clear, and there are dense scatters of sherds to be plainly seen on the surface. This site is Catling EC 110.
[164] Frankel and Webb 1996, 12-13
[165] Frankel and Webb 1995, 121

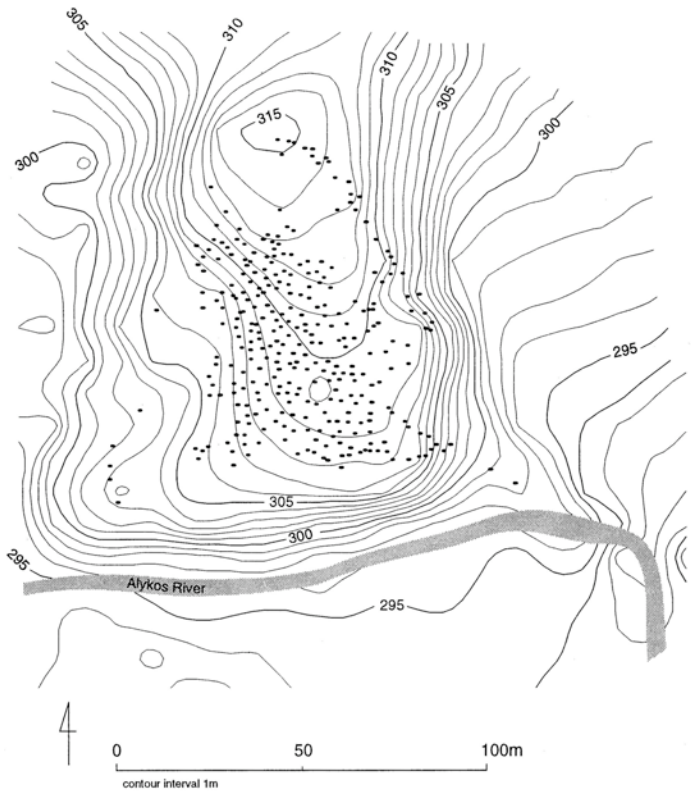


Figure 15 - Location of Tombs in Kappara Cemetery (Frankel and Webb 1996, Fig 2.4)

Marki-Davari (Cemetery)

Davari is another spur coming off the same northern cliffs as Kappara, though this site is closer to Alonia, only 450m to the northwest. Karagheorghis and Catling both considered Davari and Kappara to be part of the same necropolis,[166] though the more recent intensive surveys have shown an extensive break without evidence for the presence of tombs between the two locales. The 1994 cemetery survey recorded 324 tombs or probable tombs, which were divided into three distinct groups, corresponding to their height on the hill slope (Figure 16).[167]

[166] Karagheorghis 1958, 147; Catling 1963, 152
[167] Sneddon 2002, 10

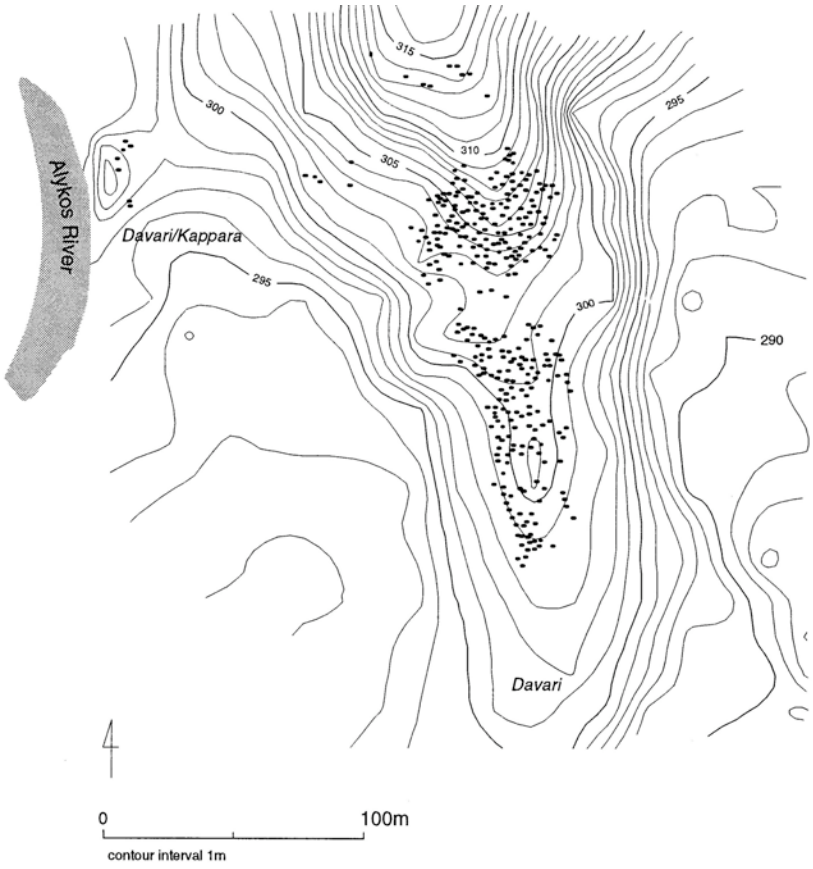


Figure 16 - Location of tombs in Davari and Davari/Kappara cemeteries

Approximately 160 tombs were found on the shallow lower slope., and appear to be single pit graves dig into the fanglomerate, now filled with soil eroded from the higher slopes. On the steeper middle slope approximated 150 chamber tombs were identified, cut into the kafkalla. Both of these areas were dated by sherds collected from the surface to ECIII-MCI.[168] The highest area, with less than a dozen identified tombs, no longer has any diagnostic material on the surface, but earlier investigations found ceramics dating to the Philia Phase.[169]

[168] Frankel and Webb 1996a, 13.
[169] Held 1992, 82-83 (site identified as Tavari B), Swiny 1985a, 14.

Marki-Davari/Kappara (Cemetery)

This small cemetery, with only 7 known tombs was also identified in the 1994 survey. It is located on a low knoll between Kappara and Davari, on the north bank of the Alykos (Figure 16). Like the tombs on the lower slope of Kappara, these tombs appear to have been simple pit graves dug into the fanglomerate.[170]

Marki-Vounaros[171] (Cemetery)

This cemetery was identified by the 1990 survey and individual tombs recorded during the 1994 survey. The Australian team believes that it is not the cemetery of the same name identified by Karagheorghis and Catling, which the excavators of Marki-Alonia renamed Vounaros/Pappara.[172] The cemetery which Frankel and Webb call Marki-Vounaros is located on the northern slopes of Vounaros hill, which lies approximately 75m east of the Alykos river, 400 meters northeast of Alonia. The tombs are chamber tombs cut into the lower and middle slope, in what appear to be 3 to 5 distinguishable east-west aligned rows,[173] and neatly clustered together into one clearly delineated area (Figure 17).

---

[170] Frankel and Webb 1996a, 14.
[171] This cemetery was difficult to relocate. When it was found it was detectable only by a very small surface scatter and some depressions in the soil. Given the SITE'S location at the base of a highly eroded hill, the openings of the looted tombs must now be obscured by sediment washed down from higher up the slope.
[172] Frankel and Webb 1996a, 121
[173] Frankel and Webb 1996a, 14

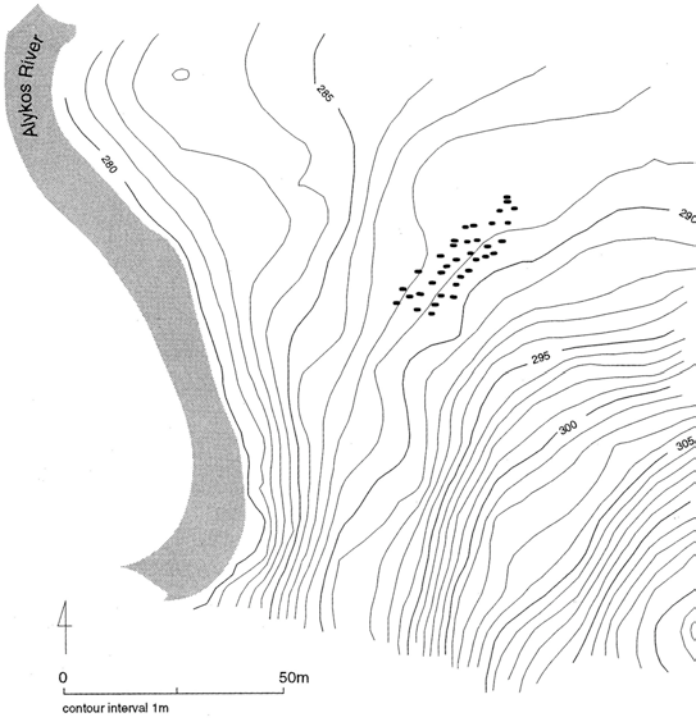


Figure 17 - Location of tombs in the Vounaros cemetery

Frankel and Webb do not give an explanation in the publication of the Alykos Valley survey as to why they believe that this cemetery is not the same cemetery as that described by Karagheorghis and Catling. Perhaps it is because the two chamber tombs excavated by the Department of Antiquities in 1940 and published by Karagheorghis in 1958 were recorded as having their entrances facing south,[174] which suggests that they were dug into a south facing slope, thus excluding them from being part of this tomb group. However, it is possible that the tombs were located south of the northern group of tombs in Vounaros-Pappara, where there is a south facing slope that has since been obscured by the construction of a large dairy operation. Placing the tombs described by Karagheorghis and Catling in this locale is also supported by

[174] Karageorghis 1958, 148

Karageorghis' description of the location of the site, which he says is "south-east of Margi village,"[175] whereas Vounaros hill is actually located northwest of the village.

Marki- Vounaros/Pappara[176] (Cemetery)

The cemetery designated by the name Vounaros/Pappara is quite large, and extends several hundred meters in a southern arc from the northeast to southwest. The Vounaros-Pappara cemetery may actually be two, or even three, separate cemeteries, all clearly spatially distinct from each other, with 170m between the southern and central groups, and 100m between the northern and central groups, though this distance would be considerably greater (over 200m) except for the presence of a few small clusters of tombs (3-5) in the intervening space between the two large concentrations. The Souvanik Dere, a seasonal watercourse that feeds into the Alykos River, separates all these cemeteries from Alonia (Figure 18).

---

[175] Karageorghis 1958, 146.

[176] There is some confusion as to the full extent of this cemetery. The 1996 Frankel and Webb publication states that, "Other tombs on the south side of Vounaros hill apparently form part of the adjoining cemetery at Pappara." (p.11) However, their maps show no tombs on the southern slopes of Vounaros, and when this site was visited in 2008, a cursory examination of the slope failed to locate evidence for their presence. However, cemeteries were successfully relocated at all places that were marked on the maps. When Marki was visited all three clusters of tombs as marked on the 1996 maps were found to have surface material consistent with Prehistoric Bronze Age tombs (primarily RP ceramics). The site that is actually named Mavroyi in the survey published in the 1996 volume(p. 6) is not listed as having Bronze Age tombs but is instead indicated as having a small cemetery of 15 Iron Age tombs, and a possible Iron Age settlement. This cemetery was also relocated during my visit, with the assistance of my local informant, but is on a low knoll about 200 meters southeast of the bronze age tombs on Mavroyi. Only a cursory examination of the southern slopes of Vounaros hill was possible due to time constraints, but no tombs were immediately apparent. These tombs had also been identified, and two excavated, by Vassos Karageorghis in 1940 and published in 1958 (146-150). As with the other cemetery on Vounaros, it is likely that material eroded from higher up the slopes has obscured the site.

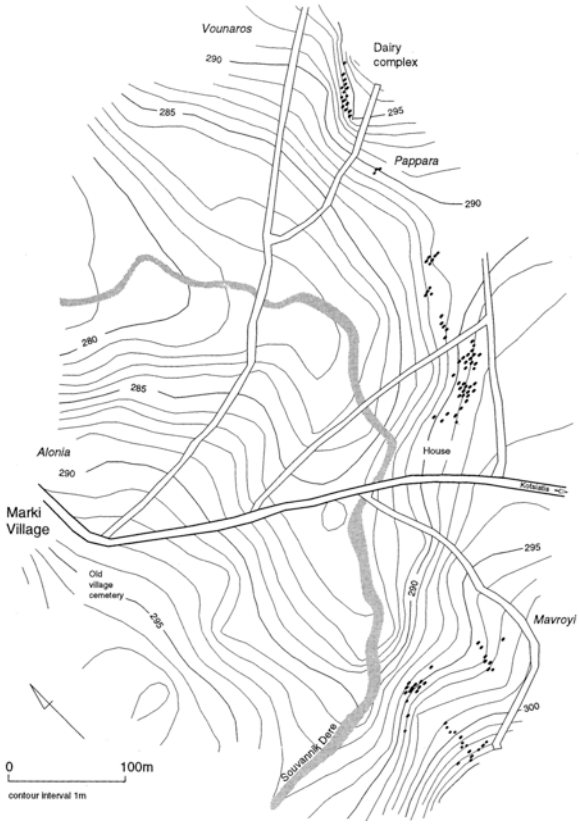


Figure 18 - Location of tombs in Vounaros/Pappara cemeteries

Each of the three "sub-cemeteries" can also be argued to be visually or spatially subdivided further into smaller clusters of tombs, which may have represented family or kin groups. The northern large group of tombs is on the northwestern face of Pappara hill, facing Vounaros hill and Alonia. A modern dirt road, providing access to several farms, now passes between the two hills. The central group is on the next low rise to the south with its tombs on a northwest slope, facing Alonia. A modern house and the road from Marki to Kotsiatis interrupt the western end of this group. The third, southern, tomb group is on northern slopes of Mavroyi.

Though spread out along a significant distance, these three groups are related by their presence at about the same elevation along one nearly continuous rise, which

only at higher elevations becomes divided into distinct topological features (i.e. the Mavroyi and Pappara plateaus). The three groups also follow an arc, maintaining a nearly continuous distance of about 500 meters from the predicted center of the Alonia settlement.

Summary

There is an extensive collection of tombs in the vicinity of the primarily Early Cypriot settlement at Marki-Alonia, including spatial concentrations that may reasonably be identified as separate cemeteries at Kaparra, Davari, Vounaros, and Vounaros-Pappara. Within each of these cemeteries discrete spatial and chronological clusters of tombs may also be identified. In the absence of evidence for any other major settlement in the vicinity prior to the later Middle Cypriot (MCII-MCIII) it is reasonable to assume that the inhabitants of the settlement at Alonia utilized the cemeteries on the surrounding high ground.

C. Alambra-Mouttes

Much like Marki-Alonia, the site of Alambra Mouttes lies at the northeast intersection of the pillow-lava foothills of the Troodos Massif with the calcareous limestone central plain of Cyprus, the Mesaoria. The site covers the northeast-facing flank of a NW-SE ridge between the hills of Mouttes and Spileos. The toponym Mouttes means "peaks" and Spileos means "cave" and most likely refers to a large cave under the top of the ridge at the southern end of the formation. The summits of Mouttes and Spileos and the ridge between them rise 100 meters above the surrounding terrain, with an average height of 315 meters above sea level (Figure 19).

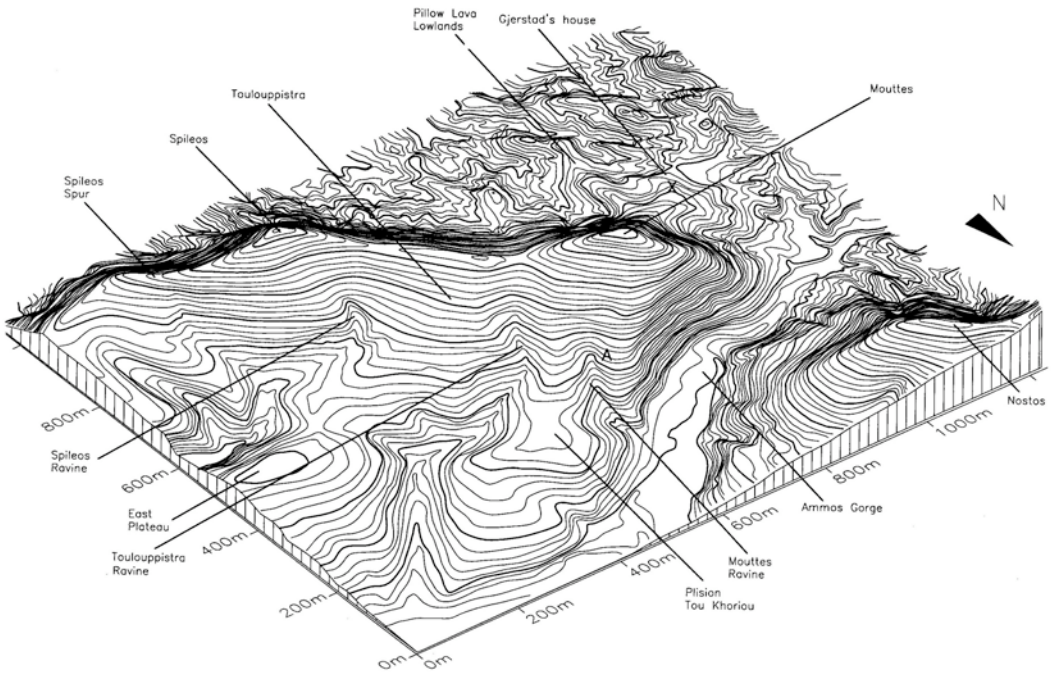


Figure 19 - Isometric topographic depiction of Mouttes-Spileos ridge (Coleman 1986, Fig. 4)

Just north of the Spileos ridge and the excavated area of the settlement runs a tributary of the Tremithos River, the Ammos, which separates the site from the

modern village of Alambra to the north. The steam is fed by a natural spring 2 kilometers to the east, and the depth of the gorge through which the steam flows indicates that this most likely was the path of the stream in prehistoric times: it would have provided a ready source of water for the settlement. The calcareous sedimentary soils to the north and east are cultivated today, and would most likely have been in the past, while the upper pillow lavas to the south and west support little vegetation (Figure 20). Modern evergreen forests are several kilometers to the southwest.[177]

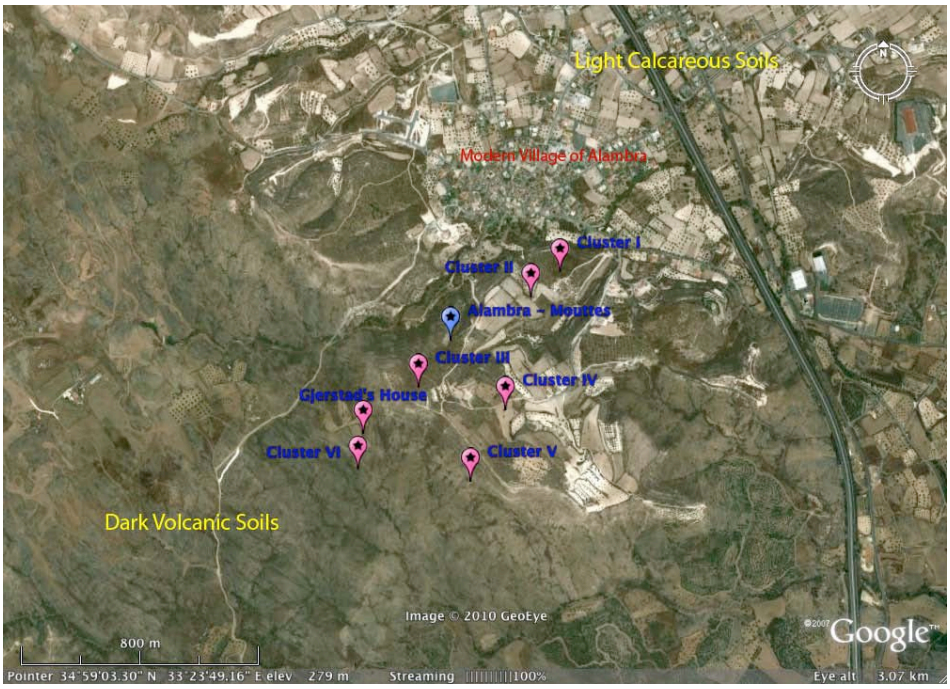


Figure 20 - Google Earth image of Alambra-Mouttes and vicinity. Soils and modern village noted.

The site of Alambra-Mouttes is the only site of the Early or Middle Cypriot that has been identified in the immediate region of the modern village of Alambra,

[177] Coleman et al. 1996, 1-3

with the exception of a small scatter at Skamnia, 3 km west. The next nearest site is that of Marki-Alonia and its surrounding cemeteries, 8 km northwest following along the pillow lava-limestone interface.[178]

The presence of Prehistoric Bronze Age remains at the site of Alambra has been documented since Luigi di Cesnola excavated 82 tombs there beginning in 1868.[179] Later in the 19th century tombs were also opened by R.H. Lang and M. Ohnefalsch Richter,[180] but the first systematic excavations were those of Einar Gjerstad in 1924. At the site he called Mavroyi, which means "red earth," identified as the southwestern slope of the Mouttes-Spileos ridge, he excavated portions of a building consisting of two rooms and a courtyard, which he dated to ECIII-MCI. He also excavated a trench in the vicinity of the modern excavation's Area A.[181] (See below). The area around Mouttes was revisited and recorded by in 1952 Catling, who recorded seven Bronze Age sites in the vicinity.[182]

Cornell University investigated the site under the direction of John Coleman, beginning in 1974 with surface survey, and then four seasons of excavation in the Area identified as Area A in 1976, 1978, 1980, and 1982. These excavations revealed extensive architectural remains, but only one phase of occupation.[183] Additional surveys in 1980 and 1984 served to identify the extent of the settlement and record the locations of tombs. Intensive survey was undertaken in areas determined to be of interest.[184]

---

[178] Coleman et al. 1996, 5
[179] Cesnola 1878: 87, Coleman et. al. 1996, 7
[180] Peltenburg and Karageorghis 1976, 85; Ohnefalsh Richter 1893
[181] Gjerstad 1926, 6; 19-27; 263-265
[182] Catling 1962: EC sites nos. 8-11, MC sites nos. 4, 5
[183] Coleman et al. 1996, 19
[184] Coleman et al. 1996, 11-15

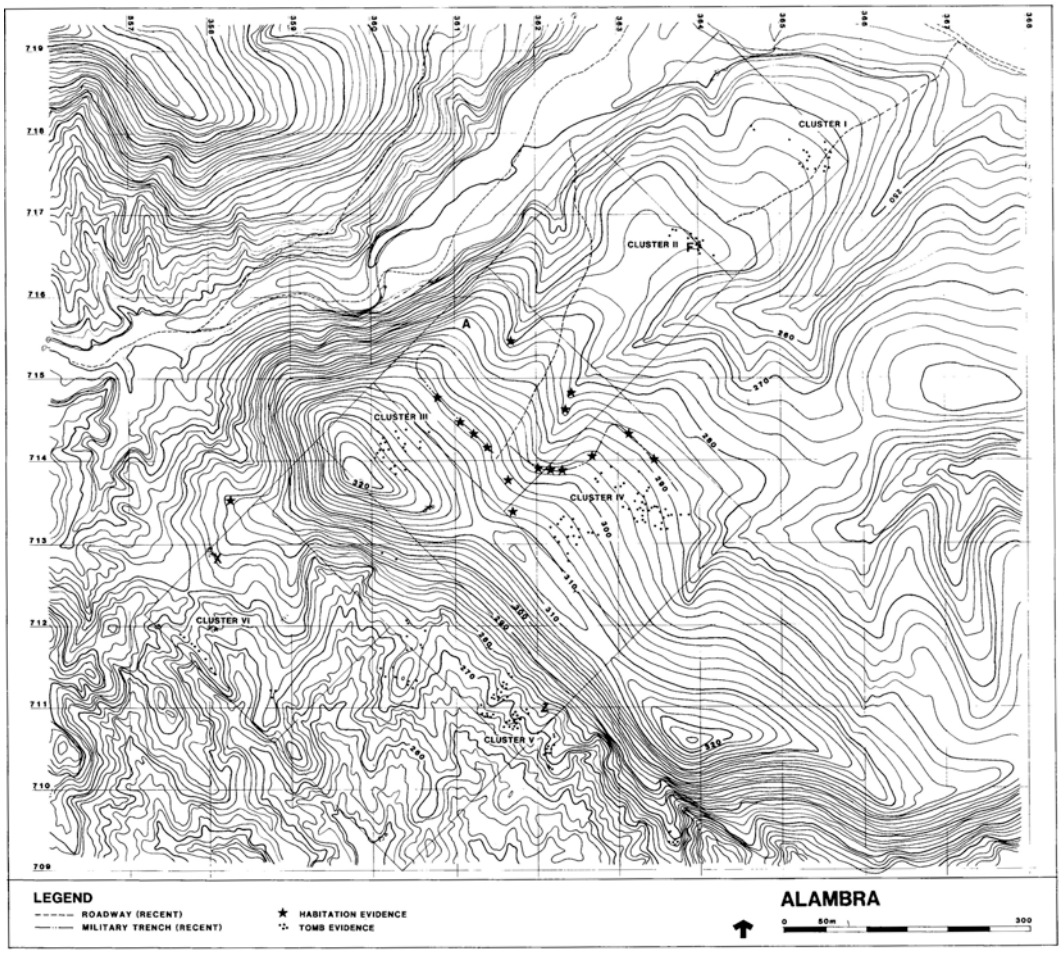


Figure 21 - Topographic map with Area A and tomb clusters. X marks the location of "Gjerstad's House." (Coleman 1996, Fig. 8)

During the surveys, six distinct cemeteries, referred to by the investigators as tomb "clusters," were identified (Figure 21). The survey results did not provide chronological data, provoking the assumption that the cemeteries are coeval with the settlement. However, the five tombs that were fully excavated by the Cornell team were all dated earlier than the settlement. [185] Given the lack of any other Early or Middle Cypriot sites identified in the immediate region, this suggests that the

[185] Coleman et al. 1996, 120-122

occupation of the settlement may have begun earlier than is suggested by the finds from the limited excavations in Area A.

Mouttes (settlement)

Area A, the only major exposure of architecture undertaken by the excavations in 1976-1982, is situated at the bottom of a small ravine, approximately halfway down the north side of the Mouttes-Spileos ridge (Figure 22). When the Cornell team began work, erosion, by cutting through 3 – 4 meters of overburden, had exposed the stubs of three walls, which helped to guide the placement of excavation units. The depth of overburden in this area indicates some major geomorphological changes in this part of the site period. The building's current location, entrenched as it appears in the hillside, obscures much of the view of the rest of the site. Architectural remains were also seen in the Talloupistra ravine, 100 meters to the southwest, indicating that the settlement was sizable.

Estimating the size of a settlement is difficult, especially given the limited extent of excavations that can be undertaken at many sites. The excavators of Alambra-Mouttes estimate the settled portion of the site by the extent of the surface artifact scatter, with what they consider a conservative estimate of 6 ha., supporting a population between 500 and 2000. [186]

[186] Coleman at al. 1996, 17-18

Figure 22 - View over excavations at Area A toward the modern village of Alambra in the North.

The excavators of Alambra-Mouttes refrained from using the traditional subdivisions of the Middle Bronze Age when describing the material from Alambra. However they did place it within the wider chronology of other sites, including Sotira-Kaminoudhia and Marki-Alonia, on the basis of both ceramic typologies and four radiocarbon determinations obtained from Mouttes. The resulting chronology places the settlement at Mouttes, which appears to possess only a single occupation phase, in the early or middle Middle Cypriot, with a rough absolute date of 1900-1800 B.C.[187]

Even the proper placement within the ceramic sequence was spiritedly debated[188], so for the purpose of this study its date will be considered MCI/II, or PreBA2. This date was confirmed in 2005, when the site at Mouttes was revisited by the Department of Antiquities, following some new architecture being revealed by a

[187] Coleman et al. 1996, 334-335
[188] Coleman 1985, 138-141; Merillees 1985, 15-16.

road cut approx. 100m northeast of the excavations at Area A. The pottery found associated with this single occupation level was assigned to MCII.[189]

The limited area of the settlement excavations and the presence of earlier tombs do suggest that an earlier occupation may be found elsewhere. It should also be noted that Einar Gjerstad dated the material he recovered from the sounding he dug at Mouttes to ECII/III.[190] He also excavated on the far side of the hill in the area called "Mavroyi" (dark soil, in contrast to the limestone "Asproyi" on the eastern slopes). The Cornell team relocated the site they believed to be Mavroyi in the pillow lavas west of Mouttes with the assistance of local villagers. Gjerstad excavated a house at this site that he believed dated to the ECIII/MCI,[191] so it possibly represents an earlier settlement than that at Mouttes.

Cluster I

This cluster of 18 possible tombs is located 450 meters NW of Area A on a 4% eastward inclined grade in a 50 x 100 meter area. Nine tombs were identified by openings visible on the surface. As the opening revealed bell shaped roofs, at a depth that suggests the necessity of a dromos to provide access, it was determined that they all were most likely chamber tombs. The majority of the tombs are clustered around the perimeter of a clearly visible outcrop of the limestone bedrock.[192] This cluster of tombs lies at the lowest elevation of any of the cemeteries, and from this vantage point, looking uphill the whole eastern flank of the Mouttes-Spileos ridge is visible.

---

[189] Georgiou 2008, 133-136.
[190] Gjerstad 1926, 6
[191] Ibid, 6, 19-27; Coleman et al. 1996, 7
[192] ibid., 125

Cluster II

Cluster II is a group of 14 possible tombs, scattered evenly over a 50 x 75 meter area, 150 meters SW and uphill of Cluster I and 250 meters NE and downhill from the inhabitation at Area A.[193] The surface slopes gently (2% grade) to the northeast. Tomb 101 was excavated in this area in 1976, and another test pit uncovered the dromos of a second chamber tomb, which appeared to be looted. A third tomb with a clearly visible opening appeared to have no dromos. The area was graded for an agricultural terrace in 1981, destroying several tombs. The large number of partial chambers revealed by the grading suggests that more tombs may have been present in the Middle Bronze Age than were located by the survey.[194]

This cluster also includes the tombs identified in Area F, as well as Tomb Al. 101, which was fully excavated to bedrock during the 1976 season. Scraping in the area revealed the outlines of "several pits comprising the dromoi and collapsed chambers of tombs."[195] However, the number or dimensions of these pits were not published.

Cluster III

22 possible tombs were identified in this cluster, which extends over a 100 x 150 meter area on a steep (20%) slope inclined to the northeast. Tombs were identified by cuts in exposed bedrock or by hollow sounds when the bedrock was struck with a

---

[193] The Cluster is described in the 1996 publication as being northwest of Cluster 1 instead of southwest. (Coleman et al 1996: 125) However, the map locates it otherwise, and its association with the former "Area F" makes this identification more secure. Distance Measurements were obtained via GoogleEarth.
[194] Coleman et al. 1996, 126
[195] Coleman et al. 1996, 117

metal rod. Villagers reported knowledge of tombs in the area, and the lack of any open tombs may indicate the presence of unlooted tombs.[196]

This area is about 190 meters southwest from the settlement uncovered at Area A, and west of the walls visible in Talloupistra ravine. The habitation evidence uncovered by the military trenching in 1982-1983 places the settlement within 50 meters of the cemetery. However, with its location very near to the crest of Mouttes hill, approximately 30 meters higher than the habitations at Area A, a person standing at the cemetery would have had a commanding view of the settlement and much of the surrounding region, with the exception of tomb Clusters V and VI and the area to the west, the view of which would have been entirely obscured by the top of the ridge.

Cluster IV

Cluster IV is both the second largest cluster of tombs identified in terms of its spatial extent, and the cluster with the lowest percentage of confirmed tombs. Of 57 possible tombs reported by the survey, only 4 were indicated by visible cuts in the bedrock, and one by a hollow sound beneath the bedrock. The remaining 52 were depressions in the soil, but the investigators believe that the presence of bedrock near the surface and a high density ceramic scatter support the belief that the majority of these depressions are in fact tombs.

Cluster IV is located on the eastern flank of the Mouttes-Spileos ridge, almost perfectly equidistant between the two peaks on a 10% slope. It was noted by the investigators that the tombs in Cluster IV could almost be divided into two clusters,[197] with the upper group centered around an elevation of 305 meters above sea level, and the lower around 205 meters above sea level. The intervening gap, however, may be

[196] Coleman et. al. 1996, 117;
[197] Coleman et al. 1996, 127

illusory, due to an increased depth of overburden built up behind agricultural retaining walls.[198]

The tombs in Cluster IV are approximately 240 meters from the excavations at Area A, but would be less than 100 meters from the walls that were seen in the Tallipoustra ravine. Military trenches dug in 1982-1983 by the National Guard of Cyprus exposed more architectural remains, which the Cornell excavators believe also to be Bronze Age in date: this architecture lies within 50 meters of the cemetery.[199]

Cluster V

The largest of the cemeteries in the area surrounding Mouttes, Cluster 5 consists of 87 possible tombs located among the small pillow-lava ridges that extend to the southwest from Mouttes-Spileos (Figure 23). There are 20 confirmed closed pit tombs and 8 open pit tombs. Slope in this area varies from 12% to a very steep 40%. The type of tomb appears to be determined by the terrain, with open pit tombs located in areas of shallow slope, and closed pit tombs in areas of steeper slope. Of the remaining 54 possible tombs, 49 were confirmed by visible cuts in the bedrock. Excavation area Z, which includes tombs Al. 102-105, is part of Cluster V.[200]

---

[198] Two possible tombs were located in this area by the author in June, 2008. One appeared looted and the other will be discussed in the Marking the Dead section of the analysis.
[199] Coleman et al. 1996, 15
[200] Coleman et al. 1996, 188, 127-128

Figure 23 - View of pillow lavas to south from peak of Mouttes. The location of Cluster V is in the foreground.

The Cluster V tombs are the greatest distance from identified areas of habitation on Mouttes. The tombs are located approximately 400 meters away and on the far side of the ridge and down a very steep slope from the excavations at Area A, and the nearest architectural evidence on the hill is still 200 meters away and on the other side of the Mouttes-Spileos ridge. However, the area excavated by Einar Gjerstad in 1924 called Mavroyi is 200 meters west of Mouttes' peak. Gjerstad excavated a PreBA house at this site and dated it to ECIII-MCI. This habitation area is still 400 meters from the tombs, but is on the same side of the ridge and visible from the tomb cluster. Such intervisibility in the past is difficult to confirm, though, since it is clear this area has been subject to severe erosion and the topography has certainly been altered as a result.

Cluster VI

The smallest cluster comprises only eight possible tombs, all of which were identified as being closed-pit tombs, cut into the top of a small ridge of upper pillow-lava, about 300 meters southwest of Mouttes peak. They are on an 18% southeasterly slope, in an area identified as having little erosion. Their proximity to the area of "Gjerstad's House" has led to the suggestion that they may be associated directly with that habitation, located approximately 100 meters up the slope to the north.[201]

Summary

Six tomb groups, containing both pit and chamber tombs, are situated in the vicinity of the settlement at Mouttes. The distance varies greatly though, as the tombs at Cluster IV are less than 50 meters from possible habitation remains, while Cluster V is at least 200 meters from the nearest known evidence for habitation. Also, Clusters 1-4 are all potentially intervisible with the main settlement at Mouttes, while the Clusters V and VI are on the far side of the ridge, blocked from view. It is possible that Clusters V and VI are associated with a habitation in the vicinity of Gjerstad's House on the southwestern flank of the ridge. The exact locations of confirmed tombs have not been recorded at this site in such a fasion as to allow discussion of sub-clustering.

[201] Coleman et al. 1996, 128

D. **Sotira-Kaminoudhia**[202]

The site of Kaminoudhia was first identified, like many other Prehistoric Bronze Age sites, when its cemetery was located. P. Dikaios worked in the vicinity of Sotira during the 1930s, excavating the Late Neolithic settlement at Sotira-Teppes. In the late 1940s he excavated a tomb near Kaminoudhia, the finds from which remain unpublished, but which he identified as "Copper Age" or Chalcolithic.

Kent State University had been excavating at the Bronze Age site of Episkopi-Phaneromeni from 1975-1978, and in 1978 Stuart Swiny conducted a survey of the area north of Episkopi Bay, and lying between the Kouris and Evdhimou river valleys. The survey was not systematic, but it did result in the reinvestigation of the area north of Sotira with the intent of relocating the tomb excavated by Dikaios and determining what other remains of settlement or cemetery might be nearby. The attempt to relocate the tomb excavated by Dikaios was unsuccessful, though the correct area was identified and named Cemetery A, and a second cemetery on facing slopes to the east was named Cemetery B (Figure 24). At that time the settlement site to the south was also located and investigated with a walking survey that found occupational debris covering approximately 2 ha.[203]

A 4-week exploratory season was undertaken in 1981 to evaluate the potential of the site for excavation. A large quantity and variety of finds from the Chalcolithic and Early Bronze Age were found, and a larger project was planned for 1983, when an

---

[202] The author visited the site of Sotira-Kaminoudhia and the nearby Neolithic site of Sotira-Teppes in June, 2009. Though the excavations of the settlement are still clearly visible and in good condition, the cemeteries have been largely covered by recent construction. In the case of cemetery B, no further tombs were expected, but Cemetery A, which Swiny believed to have the potential for producing more unlooted tombs, has been heavily damaged, and the remains of disturbed tombs were apparent.
[203] Swiny 1981, 65.

intensive and systematic survey of the immediately surrounding area was also completed.[204]

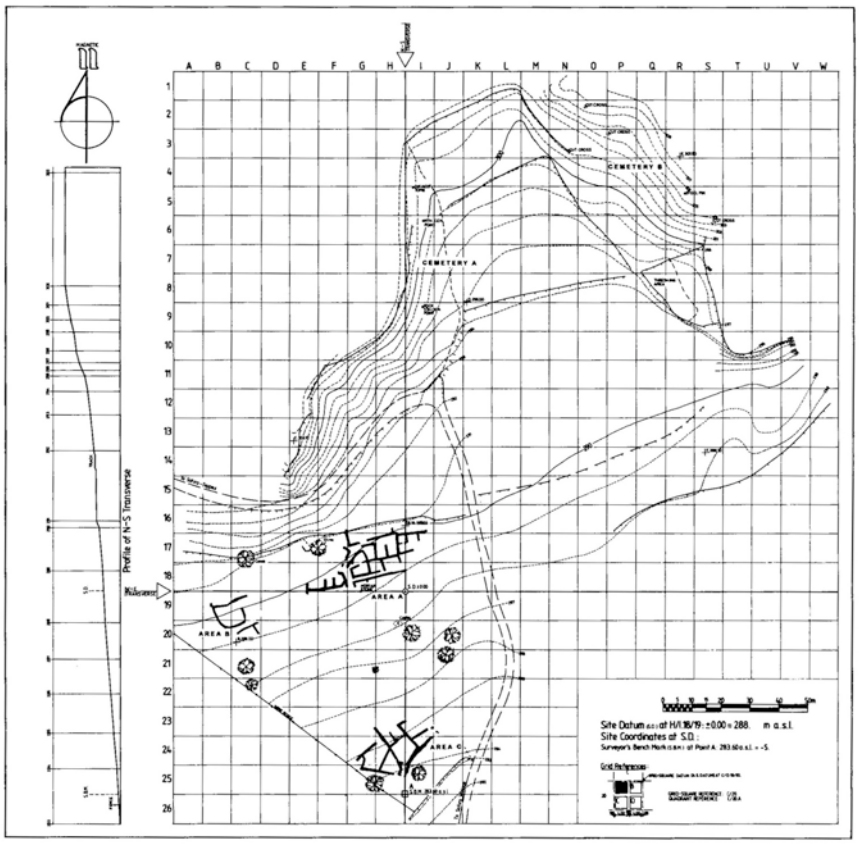


Figure 24 - Site Plan of Sotira-Kaminoudhia and cemeteries (Swiny 2003, Fig. 1.3)

Kaminoudhia lies only 250 meters NNW of the center of the modern village of Sotira and the spring that provides a steady supply of fresh water and which was therefore certainly an attraction to the area for the prehistoric inhabitants of Teppes and Kaminoudhia.[205] The Neolithic site at Teppes lies west of the modern village, and about 350 m SW of Kaminoudhia. The name Kaminoudhia means "small lime kilns"

[204] Swiny et al. 2003, 5
[205] Dikaios 1961, 1; Swiny 1981, 65

and refers to the south-facing slopes north of the modern village.[206] The site lies at 290-300 m. above sea level,[207] in the southern chalk plateau region. The predominant geology of the surface in the area of Sotira Kaminoudhia are the chalks and limestones of the Pakhna Formation, with occasional shallow pockets of the more fertile Mediterranean terra rossa. The topography generally rises to the north, eventually becoming the foothills of the Troodos Massif.[208]

Kaminoudhia (Settlement)

Though the size of Kaminoudhia was originally estimated to be 2 ha., the final publication gives a more conservative estimate of 1 ha. Three areas, named A, B and C, were exposed uncovering architectural remains, which may at one time have been continuous between areas.[209] The site map from the 1978 survey suggested the site might continue further to the south and west of the areas exposed in the 1981 and 1983 excavations, but the final publication does not indicate whether testing was undertaken in these areas. [210]

Excavation of the settlement identified two occupational phases. The later phase, Phase II, has been dated both by ceramic sequence and radiocarbon to ECIII. Phase I is more problematic. While earlier than Phase II, the diagnostic ceramics from Phase I also appear to be primarily ECIII, and the radiocarbon dates suggest that the phases are separated by at most 70 years, [211] and limiting the known dates for Sotira Kaminoudhia to the start of PreBA 2.

---

[206] Swiny et al. 2003, 3
[207] Swiny 1981, 65
[208] Swiny et al. 2003, 463
[209] Swiny et al. 2003, 104
[210] Swiny 1981, 61
[211] Swiny et al. 2003, 494-505; Manning and Swiny, 1994

Neither the 1978 or the 1983 surveys produced any evidence for other Early Bronze sites in the vicinity, so it therefore remains uncertain where the people buried in the earliest tombs lived, and also whether there are more tombs of later date that coincide with the major occupation of the settlement yet to be discovered. However, the excavations of the settlement were limited, and the original investigators have suggested that further exploration in areas with deeper deposits might reveal earlier occupations.[212]

Cemetery A

Cemetery A was the site of the tomb excavated by Dikaios in 1947.[213] It is located on the west flank of a small valley, approximately 100 meters due north of the eastern edge of the excavated settlement. Fifteen tombs were identified and excavated in the 1981 and 1983 seasons, through the opening of a series of trenches in different areas on the hillside, which were then excavated down to bedrock (Figure 25).[214] The tombs found vary in both size and architecture, and range in date from Philia up to ECIII, so covering the duration of PreBA1, and the beginning of PreBA 2. The entrances to tombs located on this slope would not have been visible to the majority of the settlement, which they mostly pre-date.

[212] Swiny et al. 2003, 504
[213] Diakaios 1948, 23; Swiny et al. 2003, 105
[214] Swiny et al. 2003, 107

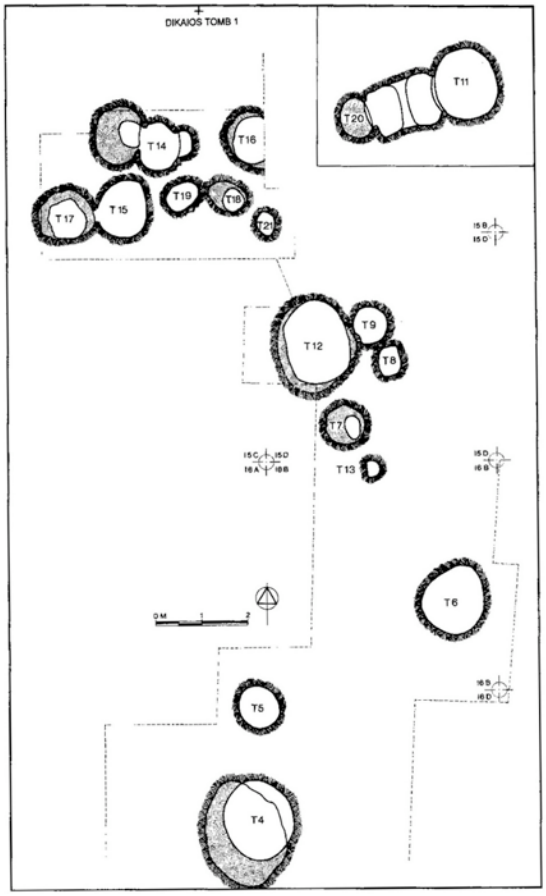


Figure 25 - Plan of Cemetery A, with inset of Tombs 11 and 20 (Swiny and Herscher 2003, Fig. 3.1)

The excavators also include with Cemetery A two tombs located right in the middle of the small valley, 25 meters NE of the rest of the tombs in the cemetery. These tombs were found under nearly 2 meters of soil, and were only discovered by chance by a geologist's probe.[215] Their location suggests that others may be located under the deeper deposits of the valley floor, and that the so-called Cemeteries A and B may in fact be components of one much larger continuous cemetery.

[215] Swiny et al. 2003, 120

Figure 26 - Tomb from Cemetery A visible in road cut, with one ceramic vessel visible in situ in the profile, and other broken ceramics and modern garbage present.

There has been significant construction in this area in recent years with four new houses being built in the area of the cemeteries. The road to the northernmost houses into the slope where the Kent State University Expedition had identified Cemetery A. When the author visited the site in the summer of 2009, two tombs were visible in the road cut, one only partially looted (Figure 26).

Cemetery B

The three tombs that constitute Swiny's Cemetery B are on a hillside about 70 meters to the east of Cemetery A across a small valley and therefore about 130 m. northeast from Kaminoudhia. Locals report that the tombs had been investigated 60 years ago, though Swiny suspects that they may have been open for centuries. The investigations in 1981 opened a series of five trenches in the surrounding area, also brought down to bedrock, which failed to locate any further tombs in the vicinity

(Figure 27). However, some intact ceramic vessels were found buried in the soil 5-10 meters southeast of the tombs, unbroken and apparently undisturbed.[216] Any future investigation in this area will be severely hampered by the construction of a house and outbuildings atop the site.[217]

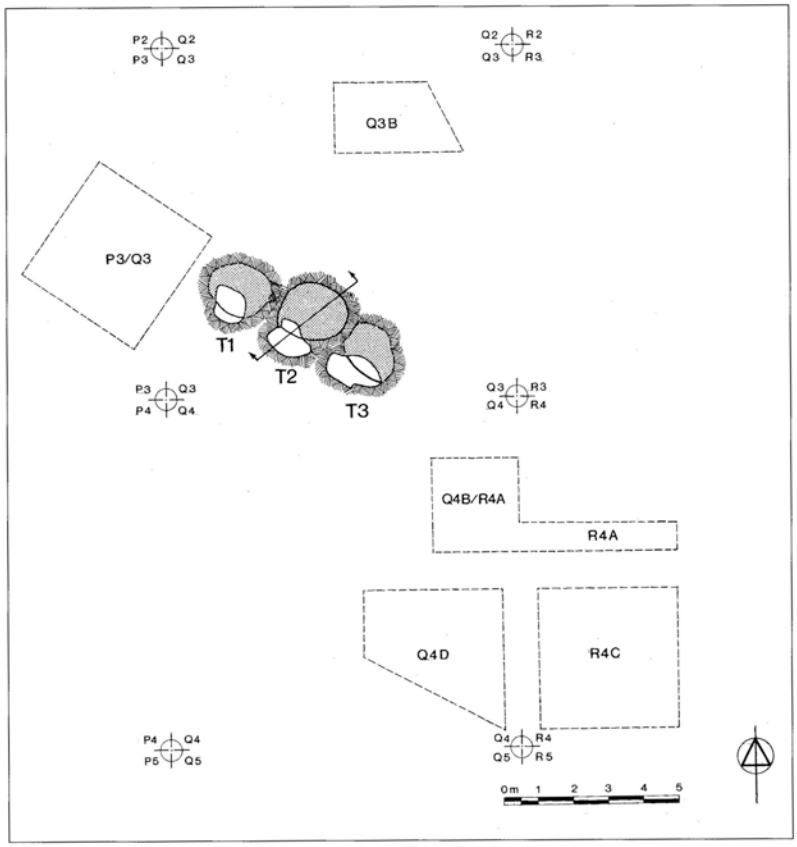


Figure 27 - Plan of Cemetery B (Swiny and Herscher 2003, Fig. 3.6)

[216] Swiny et al. 2003: 140

[217] Recent aerial photography available on GoogleEarth shows the location of the three known tombs in Cemetery B as completely obliterated by the new construction, which extends across the valley to the west. This was confirmed by the author's visit in the summer of 2009, at which time it was observed that new houses had been built in the vicinity of Cemetery A and the new road cut leading to them has exposed at least two unrecorded tombs to looting.

Summary

At the Early Cypriot site of Kaminoudhia tombs, the majority of which appear to have preceded the currently known levels of the settlement, are situated on the slopes of a small valley to the north and east of the settlement. These tombs are currently grouped into two distinct cemeteries, but more recent evidence suggests that the two cemeteries may be part of one larger cemetery, with additional tombs located beneath the alluvium in the lower valley.

E. **Vasilikos Valley**

The Vasilikos Valley has been the subject of the most intensive, systematic, and complete regional survey on Cyprus. To date, ten volumes have been published on the Vasilikos Valley Project (VVP), detailing the results of surveys and excavations of cemeteries and settlement sites from all periods of human habitation. Work between 1976 and 1989 identified 135 sites, of which 98 were identified as having possible prehistoric Bronze Age components. For the purpose of this study, only sites within 2km of the centrally located cemeteries at Kalavasos are discussed. However, there are several additional PreBA sites known in the valley, particularly to the north of Kalavasos, and it is believed by the investigators of the Vasilikos Valley Project that many more remain to be discovered even further to the North, where survey has yet to be completed.[218]

Before discussing the Bronze Age cemeteries and settlements identified by the Vasilikos Valley Project, it will be useful to review the geology of the Vasilikos Valley. The Vasilikos Valley is one of a series of river valleys on the south coast of Cyprus that drain the southern flanks of the Troodos Massif. The upper reaches of the river's catchment are underlain by the igneous rocks that characterize the mountain range, primarily diabase rocks and pillow-lavas.

The lower reaches, where research was focused and where most of the currently known sites are located, are made up of the calcareous sedimentary rocks of the Lefkara group, primarily chalks and but also chert and gypsum.[219] The valley narrows appreciably, with the sides becoming very steep, in the area of the village of Kalavasos and immediately to the south. In this area the havara or kafkalla limestones

[218] Personal communication with Ian Todd, Aug. 28th, 2009.
[219] Todd et al, 1987, 6.

become more prevalent. As the valley widens and enters the sandy marls of the coastal plain, the sides of the valley diminish, and isolated hills become more common.[220]

The availability of running water in the Vasilikos river is determined entirely by precipitation, and historically has been seasonal, usually lasting from mid-Fall to Late Spring. However, there are three aquifers in the area, which until modern times were under pressure and fed a spring north of Maroni, to the southeast. It has been suggested that wells would have been dug at Kalavaso-Tenta during the Aceramic Neolithic, so it can only be assumed that the same would be true during the Prehistoric Bronze Age.[221]

Prior to the VVP, archaeological work in the Vasilikos Valley had concentrated on the cemeteries in Kalavasos Village, the presence of which had been known for a long time. Vassos Karageorghis was the first scholar to publish any material from scientific excavations, but it is known that Henry Beauchamp Walters excavated at the site in 1897 for the British Museum and the tombs at Kalavasos are briefly mentioned in Einar Gjerstad's 1926, *Studies on Prehistoric Cyprus*.[222] Beyond the cemetery, it seems likely that Walters also did some work at some other localtions in the valley, including the Chalcolithic site at Ayious.[223] In 1939-1940, Dikaios did some reconnaissance work in the valley, including a sounding at the Ceramic Neolithic site at Kalavasos-Kokkinoyyia and the Chalcolithic site at Pamboules.[224] The rest of the valley went largely uninvestigated, and when Catling produced his seminal concordance of Bronze Age sites in 1963, the only recorded sites in the Vasilikos Valley were the cemeteries at the Village and Ayious, one other unnamed

---

[220] Ibid., 7.
[221] Todd, et al. 2004, 11.
[222] Catling 1963, 150; Gjerstad 1926, 14.
[223] Todd, et al.2004, 115-166; identification of excavations inferred from information provided by Walters in Mayres and Ohneflasch-Rivhter, 1899: 187
[224] Todd 2004, 18

cemetery, and a settlement named Dipla-Eleia,[225] which the VVP believes may be the site now referred to as Kalavasos-Mitsingites.[226]

In Catling's catalogue, all the sites in the region were assigned to the Early Cypriot, with no recorded Middle Cypriot occupation in the region. This situation was completely reversed by Vasilikos Valley Project's earlier publications, which assigned all prehistoric Bronze Age sites in the valley to Middle Bronze Age. The investigators believed that a settlement pattern with several Chalcolithic sites[227] and literally dozens of Middle Bronze Age sites, with a complete gap in the Early Bronze Age was highly unlikely,[228] but the understanding of the regional ceramic sequence, which sorely needed development from the results of stratified excavation, did not allow precise assignation of artifact scatters to different chronological units.

The collections of ceramic material from the Field Survey have been reconsidered in light of new information from more recent excavations, and several of the sites identified by the Field Survey of the Vasilikos Valley Project have been given new chronological assignations in the doctoral dissertation of Giorgos Georgiou.[229] The contents of excavated tombs have also been reanalyzed and new dates assigned where appropriate in the recent Volume 11 of the Vasilikos Valley Project.[230] All other sites must for now still be considered Middle Cypriot, or ProBA 2, as originally published.

---

[225] Kalavasos Village is Catling 1963: EC site no. 53, Kalavasos Ayious is EC site no. 113 (Mari – Ayious), unnamed cemetery is EC site no. 52, and Dipla-Eleia is EC site no. 51.
[226] Todd et al. 2004, 86
[227] Todd et al. 2004, 179; There are 8 confident and 4 tentative Late Chalcolithic sites listed in the 2004 Survey report.
[228] Todd 1988 , 133
[229] Georgiou 2006: unpublished dissertation. This work is in press, but not yet available. It is cited, and some of its finding related in the also as yet unpublished Volume 10 of the Vasilikos Valley Project, of which Ian Todd kindly gave me an early draft.
[230] Todd, et al. 2007

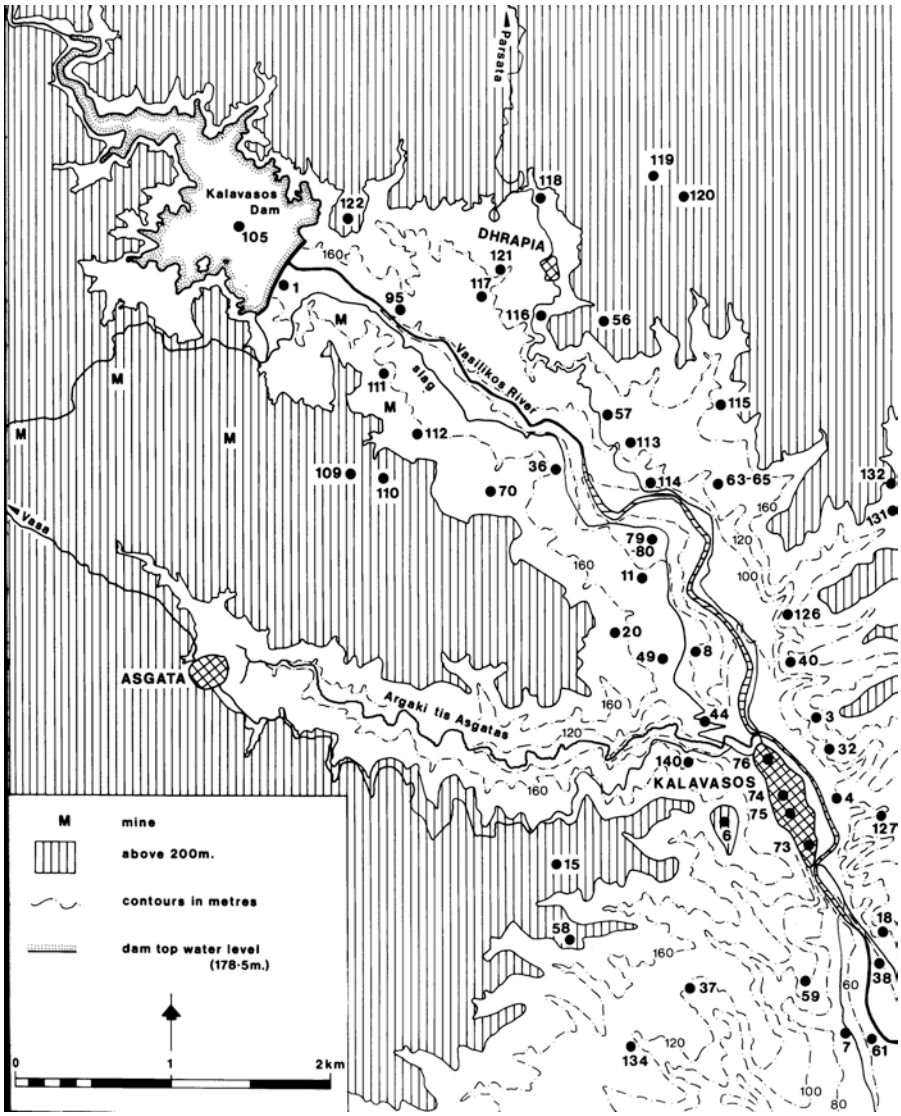


Figure 28 - Sketch map of northern portion of the Vasilikos Valley. Site numbers correspond with those used in the text. Cross-hatched area is the location of the modern village, and the Village cemetery. (Todd 2004, Fig. 20)

Kalavasos – Village (Cemetery)

The village of Kalavasos is located at the narrowest point in the central area of the Vasilikos valley, approximately 5.5 km from the coast and 4 km south of the rich

copper mines further up the valley.[231] In this area the slopes of the valley are very steep, creating a strategic location through which all routes of land-based communication are forced to pass (Figure 28).

Within the bounds of the modern village of Kalavasos, Early and Middle Cypriot tombs have been found in three areas named after nearby civic landmarks – the cinema (no longer used as such), the Mosque [74], and the Panayia Church [75] and School [73]. These areas are roughly in a straight line, with the Mosque, located in the center of the village, furthest north, the Church 250 m. south of the Mosque, and the Cinema, located near the southern edge of the village, another 90 m. to the south.[232]

All tombs in these areas have been found by chance in the course of construction activities within the village. With excavation in the confines of the village limited by opportunity, whether these three areas represent distinct cemeteries or are merely the known portions of one large cemetery remains unknown.

The different areas do appear to be of different dates. The tombs in the area of the cinema, the farthest south, seem to be the earliest, dating to the ECII and ECIII. The Panayia Church and School area has tombs from dating from the ECIII through the end of the Middle Cypriot, with possible Late Cypriot and Iron Age outliers. However, its greatest use appears to have been in the ECIII and MCI. The Mosque area seems to have come into use in the ECIII or MCI, and continued in use into the Late Cypriot. This suggests an overall gradual shift to the north throughout the PreBA.[233]

---

[231] Todd, et al. 2004, 106
[232] Todd, et al. 2007, 4
[233] Todd, et al. 2007, 326-327

Though the original slope of the terrain is impossible to know now, as centuries of terracing and construction have obliterated the original ground surface, the village and the cemetery beneath it are found on the west side of the valley, on east-facing slopes. The center of the village, near the Mosque, is also the highest ground within the village. This means that the move towards the north was also a move towards higher ground. [234]

North of Kalavasos Village

Within 2km north of Kalavasos Village, the Vasilikos Valley Project located 16 sites that were identified as probable settlements. Some of these sites on further consideration were believed to represent separate areas of larger sites, and were subsequently grouped together, resulting in 10 suspected settlements (Figure 28).

Scatters of Prehistoric Bronze age RP sherds and stone tools covering areas less than 2 ha identified most of the sites. Two sites, or site complexes, were significantly larger, with extensive scatters of ceramics and tools and exposed architectural remains: the site cluster at Kalavasos-Arkhangelos [8,11,20] and Kalavasos-Laroumena[44], and Tokhni-Oriti [126, 131, 132]. A third settlement, Yirtomylos [79], near the copper mines and adjacent to Arkhangelos to the NW, has been heavily damaged, but at one time may have covered as much as 6 ha.[235]

The larger sites of Arkhangelos [8] and Laroumena [44], along with the smaller sites of Ayios Kaloyeros [11], Gouppos [20] and Malouteri [49] were initially recorded by the survey in 1976. The sites were then resurveyed in 1988 and it was determined that they were most likely all components of one large settlement that

[234] Ibid., 327
[235] Todd et al., 2004: 111

extends over 1.15km x 675m, or as much as 70 ha.[236] Originally assigned to the Middle Bronze Age, the reconsidered dates include a possible Philia phase, with ECIII-MCIII occupation.[237] The Philia date now seems unlikely, as this assignation was due to the dating of some sherds collected at Arkhangelos during survey being initially identified as Philia, but when the material was recently shown to David Frankel and Jenny Webb, the two scholars with the most experience with Philia material, they felt it was inconclusive.[238] With this Philia date dropped, there is no longer any evidence for Philia material being present anywhere in the Vasilikos Valley.

The large settlement site at Arkhangelos-Laroumena begins about 1km NNW of the Mosque, extending over the south and east slopes of a high ridge at the confluence of the Vasilikos and the Argaki tis Asgatas, a tributary from the west. Portions of the modern village of Kalavasos, where the Bronze Age cemetery was located, are visible from the higher elevations of the Laroumena ridge, but in some places they are screened from each other by variations in the terrain.[239] Intensive surface survey and examination of road sections and terrace cuts throughout this area have revealed extensive architectural remains, confirming the presence of a significant settlement (Figure 29). Near the crest of the ridge on the south side are two exposed and looted rock cut chambers, with no dromoi or human remains, which represent the only possible evidence for tombs at the site, but their actual use remains unknown, and

---

[236] Todd et al., 2004: 40
[237] Todd et al., unpublished manuscript for VVP vol. 10 18, cf. Georgiou, unpublished dissertation.
[238] Horowitz, unpublished manuscript for VVP vol. 10, described in personal communication with Ian Todd, Aug. 28th, 2009. Stuart Swiny performed the initial identification, but David Frankel and Jenny Webb were asked to look at them in preparation for the publication of the ceramics from the survey in the forthcoming VVP volume.
[239] Dr. Seth Button and the author relocated this site during the summer of 2008. Architectural remains and a very dense surface scatter of ceramics and ground stone were noted.

at this time the VVP investigators consider there to be no evidence for a cemetery present at this site.[240]

Figure 29 - PreBA wall visible in profile of road cut at site of Kalavasos-Laroumena

The Tokhni-Oriti sites lie about 1.35 km NNE of Kalavasos Village up a long narrow side valley to the East of the main Vasilikos valley. The two sites combined cover an area over 11 ha. Both Oriti-North [132] and Oriti-South [131] are situated so as to have extensive views of the side valley, and a short ways north of the settlement there is a high point with a strategic view of much of the surrounding territory all the way down to the northern Vasilikos Valley, including the Kalavasos Dam and Yirtomylos[79]. Kalavasos Village, and therefore the cemeteries located there, are not visible.[241] A scatter of Prehistoric Bronze Age ceramics stretch nearly the whole distance from the Vasilikos Valley at Pervolia [126] NE up the valley to Oriti,

[240] Todd, et al. 2004, 71; Personal communication with Ian Todd, Aug. 28th, 2009
[241] Todd, et al. 2004, 137-139

suggesting regular communication and travel.[242] This indicates that despite the distance, and lack of visual contact between these major sites, they need to be considered as part of the same network of sites as the rest of the Vasilikos Valley.

As with the other sites, no associated cemeteries were identified at Oriti. However there was one round pit (1.35 m. dia., .70 m depth) found in North Oriti, with a possible wall along the south side, pithos sherds in and around the pit, and a quern and grinding stone nearby.[243]

Adjacent to Kalavasos Village

Seven sites were recorded by the VVP on the east side of the Vasilikos Valley, across the river from Kalavasos Village. The largest of these, Alonia tou Pano Zyou [3] was recorded as having a surface scatter covering at least 8.75 ha.[244] None of these sites had any evidence for cemeteries or individual burials, and all are currently believed to be settlements.

[242] Todd, et al. 2007, 328
[243] Todd, et al. 2004, 138
[244] Todd, et al. 2004, 33

Figure 30 - View from the southeast, looking north up the Vasilikos Valley to the Troodos. Angastromeni is prominent on the left, and Kalavasos village can be seen at its base.

West of the village, a thin scatter of Bronze Age ceramics continues up the steep east-facing slopes to Angastromeni [6], a primarily Ceramic Neolithic site, at the crest of the hill from which the name comes (Figure 30). Whether this artifact scatter represents the disturbance of further tombs upslope beyond those already known in the Mavrovouni/Mosque area, or from some other activity is not known. However, the hill itself is a highly visible landmark that can be seen for the entire length and breadth of the Vasilikos Valley, and from its peak the valley can be viewed from coast in the south to the Dam and mines in the north. The name "Angastromeni" means "pregnant woman" in Greek, and most likely refers to the fact that viewed from a distance, this peak may bear a certain resemblance to the belly of a pregnant woman. Apparently, some locals go so far as to claim that when viewed from the north or northeast one is

able to see the figure of a pregnant woman lying on her back, with Angastromeni as the belly and smaller peaks to the west as the breasts and head.[245]

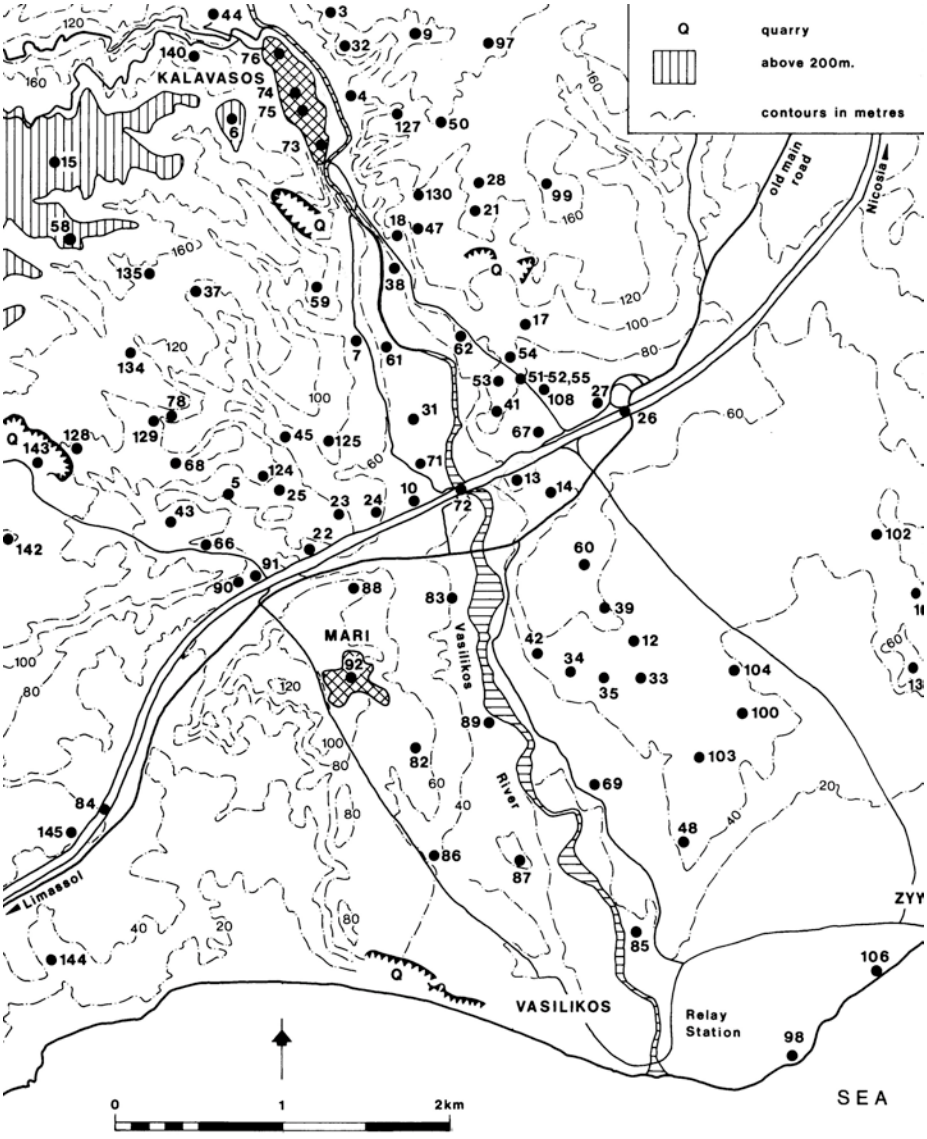


Figure 31 - Sketch map of southern portion of Vasilikos Valley. Site numbers correspond with those used in the text. Cross-hatched area is the location of the modern village, and the Village cemetery. (Todd 2004, Fig. 21)

[245] Personal communication with Alison South, Aug. 13th, 2009

South of Kalavasos Village

There is extensive evidence for inhabitation of the Vasilikos Valley both immediately south of Kalavasos Village and further south as the valley widens into the coastal plain. Within 2 km of the center of the village (measured from the centrally located Mosque), another 20 sites were identified that exhibited evidence for Prehistoric Bronze Age inhabitation or activity (Figure 31).

Of these sites, again the great majority was recorded as having an artifact scatter that covered less than 2 ha. Three exceptions, however, must be noted. On the east side of the valley, continuing the chain of sites along the eastern ridge of hills, are the sites of Lourca [47] Fournia [18] and Kokkino Kremmos [38], all believed to be components of the same large site. The site thus begins approx. 1.25 km SSE of the Village and extends over the top and eastern slopes of Lourca hill, down to the lower river terrace at Kokkino Kremmos. Together the three site components cover over 11 ha.[246]

When Lourca was first located by the survey, a member of the survey crew recorded the presence of possible tombs to the west and north of the settlement. The location was then heavily damaged by construction before it could be confirmed, but the VVP investigators now believe that the presence of a cemetery was unlikely.[247] Like the settlement at Arkhangelos-Laroumena, the Lourca-Fournia site has a estimated date range of ECIII-MCIII, giving it a PreBA 2 site. Unlike the sites on the west side of the valley, this site would have had a clear view of the coastal plain to the south, east and west, as well as Kalavasos Village to the north.[248]

---

[246] Todd 1988, 137-138; Todd et al. 2004, 73-74
[247] Personal communication with Ian Todd, Aug. 28th, 2009
[248] Lourca-Fournia was visited in the summer of 2008, but only minimal evidence for the settlement was found, as a large new housing settlement is being built on the southern side of the hill, nearly reaching the water facility that destroyed any evidence for the remains of the possible cemetery.

Directly across the valley to the west lies the site of Mitsingites [59], associated with a locale called Kokkino Kremnos, about 1 km south of Kalavasos Village. This can create some confusion, as the locale name Kokkino-Kremnos, which translates at "red cliffs," refers to a geological formation that occurs on sides of the river. The VVP distinguished the two by the spelling of Kremmos and Kremnos, Kremmos [38] believed to be a component of Lourca [47](see above) to the east of the river, and Kokkino Kremnos a plateau to the west of the river, adjacent to Mitsingites.

The sites of Mitsingites and Kokkino Kremnos, believed to be components of the same settlement, together cover 6.25 ha.[249] This site complex is spread over two plateaus, the southern of which, the plateau called Kokkino Kremnos, is the location of a cemetery with dozens of visible looted chamber tombs on top and just beneath the upper ridge. Unlike the majority of the known tombs in Kalavasos Village where each chamber appeared to have either their own individual dromos or at most two chambers sharing a dromos, several of the dromoi at Kokkino Kremnos have three or more chambers visible (Figure 32).[250]

---

[249] Todd, et al. 2004, 85-86.

[250] This site was also visited and photographed in the summer of 2008. Our brief survey of the site arrived at a minimum tomb chamber count of 40, several of which shared dromoi. One dromos appeared to have at least 5 chambers coming off it, one of which was entered and measured to be of minimum 3.5m x 3m, making it larger than any tomb excavated within the bounds of Kalavasos Village. Intact, though displaced, plakas were also visible in several places.

Figure 32 – Large dromos at Mitsingites/Kokkino Kremnos, with a minimum of three chambers.

Mitsingites appears to be the southernmost in the series of sites that run along the western side of the valley, north through Arkhangelos and Yirtomylos, and up to Spilios [70], a site near the Kalavasos copper mines, approx. 3 km NW of Kalavasos Village.[251] Mitsingites was also subsequently redated, with occupations identified in the ECI-II and through the MC, and possibly through the MC/LC transition.[252] This is significant because there are not many sites believed to have both PreBA and ProBA occupations. It is likely that ECIII material will also be found at the site,[253] suggesting that like the site complex at Arkhangelos, Mitsingites may have been occupied for nearly the duration of the Prehistoric Bronze Age.

[251] Todd, et al. 2004, 101.
[252] Personal communication with Sturt Manning, based on his personal experience and notes from examining the site.
[253] Todd, unpublished manuscript of VVP, vol. 10: 18, cf Georgiou, unpublished dissertation.

Summary:

To summarize, pottery distributions previously identified by the VVP as discrete sites appear to resolve into four major settlement areas. Kalavasos-Arkhangelos/Laroumena, north of the Village has a date range of ECIII-MCIII, though earlier occupation is also possible. The site has only two known possible tombs, but no sightlines with the cemeteries at the Village. Likewise, the sites at Tokhni-Oriti, north and east of the Village have no sightlines with the Village, but no identified cemeteries. However, Tokhni-Oriti and Kalavasos-Arkhangelos are intervisible, and clearly identified paths of communication and travel along the valley would bring them directly past the Village.

Similarly, to the south two major sites have been identified opposite each other across the valley. Kalavasos-Mitsingites, on two plateaus on the west side of the valley, has an extensive cemetery, appears to have been inhabited for the majority of the Prehistoric Bronze Age, and has no clear sightlines to the cemeteries at the Village, though it has a strategic view of the valley and the coastal plain to the south. Across the river from Mitsingites and intervisible with it, Kalavasos-Lourca is of comparable size and is believed to have also had its own cemetery, the extent of which is unknown, but had a clear view up the valley to the Village.

F. Deneia

The site complex of Deneia is located in the northwest part of the island, approx. 20 km inland from Morphou Bay to the west, and is centrally located in the western part of the central Mesaoria plain of Cyprus, 20 km east of the capitol of Nicosia. However, unlike the historically well-known Bronze Age cemeteries at Lapithos and Vounous, Deneia is not north of the Kyrenia mountain range. This location makes comparisons with the sites at Marki and Alambra (respectively 25 and 32 km to the SW) of particular potential interest. For this reason, and because of the recent publication of the results of a project run there in 2002 to 2004[254] and the thorough publication of a sufficient number of tombs from the period of interest,[255] data from these sites are considered in the analysis.

The cemeteries at Kafkalla and Mali extend over approximately 6 ha. atop and surrounding the kafkalla limestone plateaux east and west of the modern village of Deneia, where they are coming under increasing pressure from the encroachment of new housing developments. The sites are also just north of the Merikas River. These cemeteries, though looted, represent one of the largest mortuary complexes in Cyprus, with approximately 1300 tombs identified during the 2003 survey season.[256]

The presence of extensive Bronze Age cemeteries has been known in the vicinity of the modern village of Deneia for a long time, but academic research has been minimal. Luigi di Cesnola recorded locating no ruins in the area in 1878, and Einar Gjerstad recognized the cemetery, but instead chose to excavate at Lapithos to the north. Catling identified sites at Dhenia-Kafkalla and Dhenia-Mali in his survey catalogue for all periods of the Bronze Age, but recorded Mali as both a settlement

---

[254] Directed by David Frankel and Jennifer M. Webb, La Trobe University.
[255] Astrom and Wright 1962; Nicolaou and Nicolaou 1988; Frankel and Webb 2007
[256] Frankel and Webb 2007, 4. David Frankel and Jenny Webb also kindly provided the author with a copy of the Access database produced by the survey season to allow easier analysis of the data.

and a cemetery in the Middle and Late Cypriot.[257] Subsequent investigations have failed to confirm the presence of a settlement in the area or to locate any others in the vicinity[258] Other excavations and surveys of the cemeteries have taken place subsequently, as well as continuing rescue excavations by the Department of Antiquities.[259]

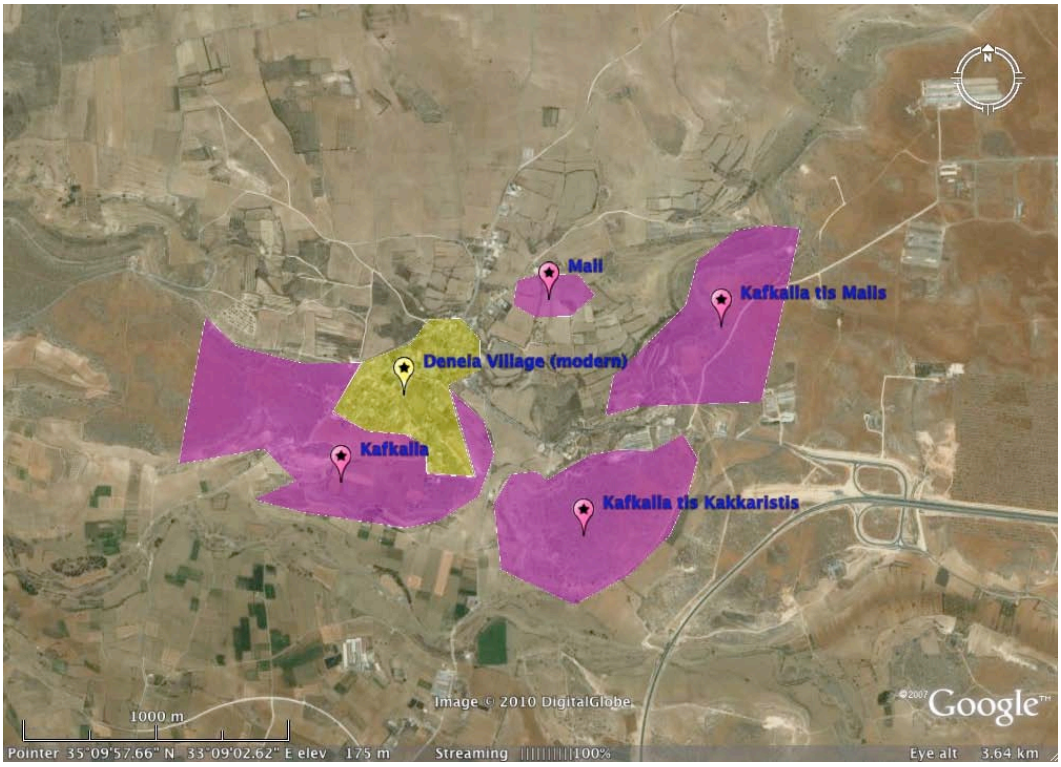


Figure 33 - Google Earth image of Deneia, with cemeteries and modern village marked. Extent of cemeteries based on the 2003 survey. (from Frankel and Webb 2007, Fig. 3.1)

[257] Catling, 1962: Dhenia-Kafkalla (cemetery)EC site no. 28, MC site no. 41, LC site no. 59; Dhenia-Mali (cemetery) EC site no. 29, MC site no, 42, LC site no. 61; Dhenia-Mali (settlement) MC site no. 43, LC site no. 60.
[258] Frankel and Webb, 2007: 1
[259] Astrom and Wright, 1962; Hadjisavvas, 1985; Nicolaou and Nicolaou, 1988; Georgiou, 2006.

The most recent survey has identified 4 separate locales as part of the Deneia cemeteries, adding Kakkaristi and Kafkalla tis Malis to the already recorded Mali and Kafkalla. Kakkaristi, a locale located to the southeast of Deneia might also be a cemetery, but there are no published tombs from this site (Figure 33).

Kafkalla consists of the top and area surrounding the large plateau immediately to the south and west of the village of Deneia, an area over 700 m east to west, and 600 m north to south. Kafkalla was in use during the Philia and EC, prior to its main use during throughout the MC. Mali is a small locale 300m northeast of the village, with an area approximately 300 x 200 m, and Kafkalla tis Malis, about 1 km to the east of the village is approximately 1 sq. km. These sites are considered together in the analysis, as the investigators believed them to be associated, serving the same settlement to the north in the Ovgos River valley, in contrast to Kafkalla, which they believe may have served a settlement to the south in the Merikas River valley.[260]

The investigators of the most recent survey believe that the tombs below the scarp and on the slopes may be from earlier and later periods. The survey counted 662 shafts atop Kafkalla and 102 atop Kafkalla tis Malis, for a total of 764 tombs, all believed to date to the Middle Cypriot, making the cemetery significantly larger than the estimated sizes of the cemeteries at Vounous in the north,[261] though that cannot be confirmed without further investigation at Vounaros, which is currently not possible due to the political situation in Northern Cyprus.

[260] Frankel and Webb, 2007: 151
[261] Frankel and Webb, 2007.: 149

Part III – Analysis and Discussion

A. Placing the Dead

It has become an accepted truism that burials during the Prehistoric Bronze Age on Cyprus were grouped into organised formal cemeteries, usually located on hillsides, but also along ridges or in low lying areas, and within view of the associated settlement.[262] However, given the relative paucity of cemeteries that have been studied in conjunction with settlements, and how recent those studies have been, it is necessary to reconsider these assumptions.

Marki

The chronologically earliest of the four community case studies is Marki-Alonia, the settlement of which is located centrally in a wide river valley, ringed by steep hills in the west, north and east, and lower ridges to the south. The site is located in an area of open terrain, surrounded by five named cemeteries, all of which are within 800 meters of the settlement. Though the site is located right at the igneous-sedimentary divide, all identified tombs are located in the sedimentary region, with no tombs in the igneous soils to the south and southwest.

The earliest tombs are those from the upper and possibly middle tiers at Davari, appearing to date to the Philia Phase. The Philia material found on the surface the middle terrace at Davari may have also come from pit tombs that were then destroyed by subsequent construction, but it is possible it came from chamber tombs that were reused in later periods. Tombs on the lower middle and lower tier are believed to date to ECI-ECII (PreBA1) as are the cluster of tombs on the small knoll at Davari/Kappara.[263] The tombs at Kappara are most likely later, with no material

[262] Steel 2004, 139; Keswani 2004, 39
[263] Sneddon 2005, 98-100

reliably dated to earlier than ECIII, and all are believed to be chamber tombs,[264] and likewise the chamber tombs on the steeper slopes of the middle tier at Davari are believed to be ECIII-MCI.

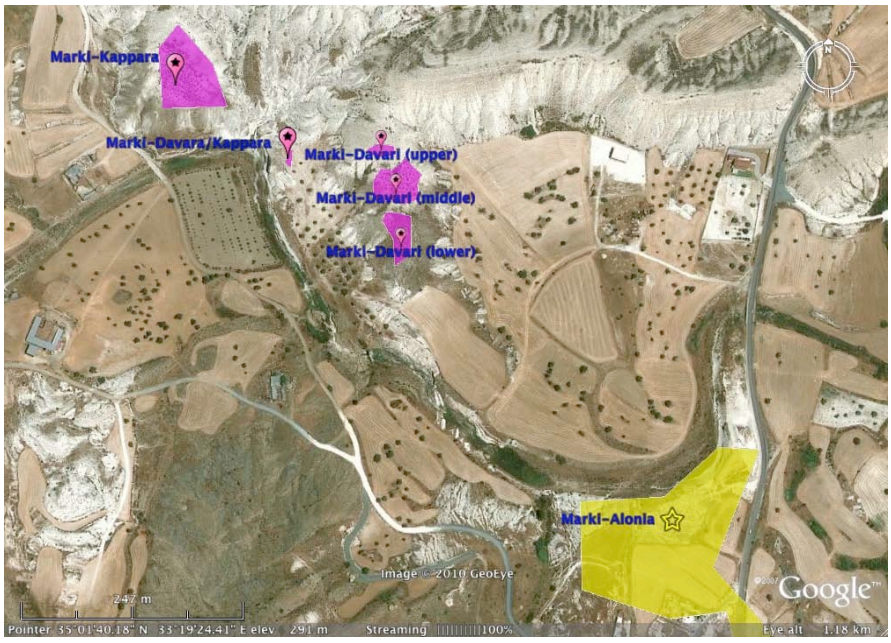


Figure 34 - Google Earth image showing known extent and linear arrangement of Davari, Davari-Kappara, and Kappara cemeteries, and the settlement at Alonia.

Davari and Kappara are both prominent ridges extending to the south from a high limestone hill that run east-west, north of the Alykos River and the settlement at Alonia (Figure 34). The small cluster of tombs referred to as the Davari/Kappara cemetery is located on a small knoll between the two ridges. Davari is approximately 500 m from Alonia, and the upper tier at Davari, where the pit tombs containing Philia material are located, is approximately 315 m a.s.l. The ECI-II tombs from Davari and Davari/Kappara are at a lower elevation, approximately 300-305 m a.s.l., and the

[264] Frankel and Webb 1996, 12

ECIII-MCI chamber tombs at Kappara, about 750 meters from the site at Alonia, are mostly at 305-315m a.s.l., and those on the middle tier at Davari at 302-305m a.s.l. The locations of the individual tombs in all three cemeteries appear to be densely, but evenly scattered.

This indicates a general pattern of earliest cemetery use at the highest elevation of the closest site. Later tombs are located either further down the slope, or further away from the settlement. It is only during the latest period of occupation at Alonia that the chamber tomb comes into use in these cemeteries. The investigators of the survey in 2004 believe that the construction of tombs on the middle tier of Davari most likely resulted in the destruction of earlier pit tombs. Chamber tombs of the same period are found at Kappara, the furthest of the cemeteries from Alonia, so perhaps as Davari became full some tombs were moved to a location more distant from the setllement. The move back to higher elevations in the PreBA 2 would also have been necessitated by geology, as loose fanglomerate would not be appropriate for rock-cut chamber tomb construction, and the steeper slope at these elevations may also have been preferable for the construction of tomb entrances.

The remaining cemeteries associated with Alonia, Vounaros and the multiple clusters of tombs at Vounaros/Pappara, have all been assigned dates from ECIII-MCI (PreBA 2), coinciding with the later occupation levels at Alonia, and possibly being adopted, like Kappara, as space in the cemetery at Davari was becoming scarce. Both cemeteries are also separated from Alonia by a river, but instead of the Alykos, they must be reached by crossing the Souvannik Dere, a tributary of the Alykos. These cemeteries like Kappara, also appear to contain only chamber tombs, the stomion of which would most likely be perpendicular to the slope on which they are built, again giving the entrance the tombs a significant directionality.

The Vounaros cemetery is located about 400 meters to the northeast of Alonia on the northwestern slopes of a prominent hill. These tombs are very tightly clustered, and appear to have possibly been arranged in distinct rows. Interestingly, they are located near the base of the hill. The explanation for this lower elevation is not immediately apparent, but is similar to that seen at Village cemetery in the Vasilikos Valley and will be discussed in the section on visibility.

All Vounaros-Pappara tombs are located along a 600 meter long arc of a low ridge to the east and south of Alonia, at a fairly consistent distance of 500 meters from the excavated portions of the settlement. Likewise, the tombs of this cemetery are all located at about the same elevation, between approximately 290 and 300 m asl. The tombs of Vounaros-Pappara are grouped into three large clusters, which can be visually subdivided further into multiple distinct sub-clusters of 3-14 tombs. Tombs within a sub-cluster are only separated by 3-7 meters, though clusters are separated by distances of 20 meters or more. This pattern of separation and clutsering in areas, when there was plenty of room for larger cemeteries, suggests intention in the grouping. Thus this "cemetery" may not have been considered as one coherent unit by the inhabitants of Alonia, but instead multiple internment areas, with the distinct clusters representing membership in some corporate group, perhaps kin-based.

Alambra

Also in the central region of Cyprus, in the northeastern foothills of the Troodos is the later PreBA2 settlement at Alambra-Mouttes, located approximately 8 kilometers southwest of Marki-Alonia. The tombs associated with Alambra are also grouped into several clusters, though some tombs are in far closer proximity to the settlement than those at Marki, within as little as 50 meters from visible architectural remains. As with the cemeteries at Marki, some clusters can be visually subdivided

into smaller sub-clusters. Clusters are separated by over 100 meters, and sub-clusters by 20 meters, while tombs within a sub-cluster are often separated by only 2 or 3 meters. As with the tombs in the Vounaros and Vounaros/Pappara at Marki, this suggests intentionality in separation. Unfortunately not enough tombs excavations have been recorded at Alambra to allow any chronological differentiation between tomb clusters.

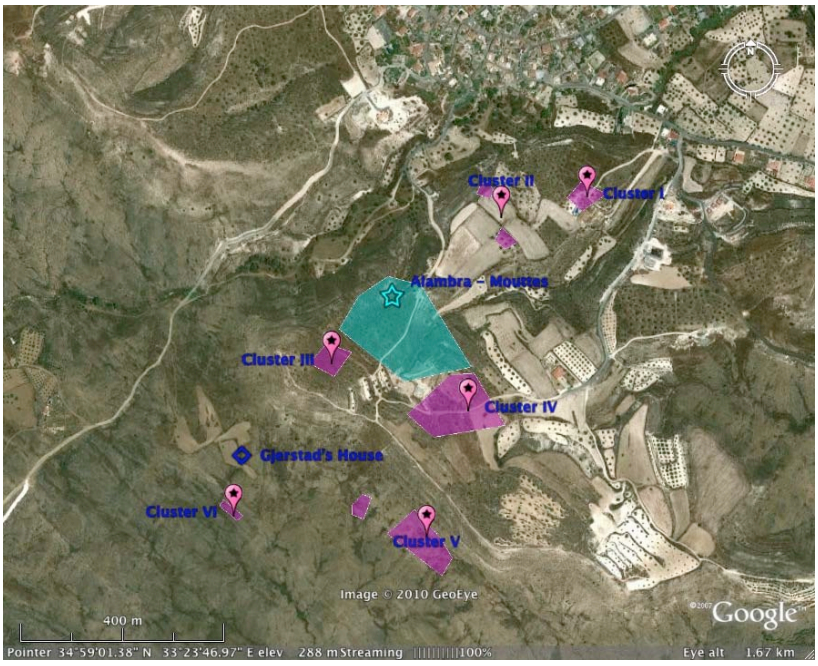


Figure 35 - Google Earth image with known extent of Alambra cemeteries and settlement marked. Note proximity of Clusters III and IV to evidence for habitation.

The excavated portion of the Mouttes settlement is located at the eastern slopes of the north end of a NW-SE oriented ridge. The cemeteries referred to by the excavators of Mouttes as Cluster II and Cluster I are located directly down slope from the settlement, approximately 250 and 450 meters northeast respectively. Both clusters are believed to consist entirely of chamber tombs, and though the one tomb that has

been excavated fully appears to date earlier than the settlement as known from the excavations in Area A, there are no known or even suspected Prehistoric Bronze Age sites anywhere else in the area, except for on the far side of the Mouttes-Spileos ridge, so it seems most likely that this tomb is simply associated with an earlier occupation at Mouttes that has not yet been firmly identified, but is hinted at by the earlier dates reported by Einar Gjerstad in his sounding.

Cluster III and Cluster IV are higher on the eastern slope, and within 50 meters of evidence for settlement architecture. Cluster III is about 175 meters southwest directly upslope (approximately 30 meters higher in elevation) from the excavated portion of the settlement, but there is visible architecture in a military trench within 40 meters to the northeast of the tombs. Cluster IV, which appears to be at least two distinct clusters, is located only 10 meters higher in elevation, but 300 meters to the southeast of the settlement excavation. Again, this is not indicative of distance to occupation, as architectural remains have been identified within 50 meters to the east, north and west of the tombs in Cluster IV. It may significant that tombs in both these areas were not identified by the presence of open tombs, but only depressions in the soil and hollow sounds beneath the limestone. Hollow sounds would indicate chamber tombs, not pit graves, making all the known tombs on the western slopes around Mouttes chamber tombs, but further investigation to confirm the presence and number of tombs.

Most of architectural evidence cited above was exposed by military trenches dug after the archaeological excavations were complete, and recorded during subsequent visits of the excavators to the site.[265] It indicates that the settlement may be much larger that originally estimated (6 hectares rather than 2-3), and it also raises

---

[265] Coleman, et. al., 1996: 15

questions about how these two cemeteries relate to the settlement. These cemeteries provide stark contrast to the assumed relationship between cemetery and settlement in the PreBA, when cemeteries are expected to be placed a significant distance from the occupied areas of the settlement, as these cemeteries may actually be located within the settlement, or immediately adjacent to the settlement, in a pattern more like that known from the Late or Protohistoric Bronze Age. Alambra-Mouttes is the latest of the PreBA sites analyzed in this thesis, with a known MCII or PreBA 2 occupation, so this may be an example of a transitional site.

The cemeteries identified as Cluster V and Cluster VI are 350 meters and 450 meters respectively from the closest architectural evidence at Mouttes, and both are over 500 meters from the excavations at Area A. This distance is not in and of itself remarkable, but their topographical location is also quite different from the pattern seen at other sites such as Marki, in that they are located on the far side of a major geological feature (the Mouttes-Spileos ridge) from the settlement. Also in contrast to Clusters I-IV, which are all located in on northeast facing limestone slopes, these two clusters are located in the pillow lavas, generally sloping to the southwest. These tomb groups also do not appear to have any chamber tombs, with only pit or closed-pit tombs having been identified.

These marked differences in location and architecture require explanation, and though they may be geologically determined (pillow lavas being more suitable for the construction of pit tombs), that would still beg the question of why the tombs were built in the pillow lavas at such a distance and so dramatically separated from the settlement. Einar Gjerstad and the Cornell excavators of Mouttes proposed that Cluster VI is not associated with the settlement at Mouttes at all, but is instead related to a possible settlement only 100 meters from the tombs in the vicinity of "Gjerstad's House," also located near the base of the southwestern slope of Mouttes.

Cluster V is 400 meters from the location of Gjerstad's House, but is also on the southwestern slopes of the Mouttes-Spileos Ridge. Five pit tombs in Cluster V were excavated, and though dating of the tombs is not firm, the tombs that contained sufficient material for dating were believed to be earlier than the excavated habitation levels at Mouttes[266] and more in line with the dates assigned to the house excavated by Gjerstad,[267] supporting the possible association. Otherwise, another explanation for the isolation of this tomb group and the use of significantly different architecture from the other tombs associated with the site would have to be proposed, possibly relating to significant status differentiation, for which there is not much evidence during this time period.

Sotira

Sotira-Kaminoudhia on the south coast is unique in this study, as the only settlement to have only one recorded mortuary area. Like Alambra-Mouttes, Kaminoudhia has only one confirmed occupation phase, in this case dating to ECIII. This postdates the majority of the tombs excavated in the adjacent cemetery, though not all, and the excavator suggests that earlier occupation levels might be found in areas of the settlement with deeper deposits than those excavated. As a survey of the surrounding area was completed and no other Bronze Age settlements were identified within a few kilometers, it appears certain that the cemetery and the settlement are associated. The cemetery and the settlement are within 100 meters of each other, but there is evidence for a distinct separation, emphasized by the difference in topography, with the settlement located in an open gently sloping area, and the tombs located a short distance up a small valley. All identified tombs were found at a higher elevation

[266] Ibid. 118-122.
[267] Stewart, 1962: 215

than the settlement, and though a mix of pit and chamber tombs were identified, all are cut into kafkalla limestone.

Vasilikos Valley

The Vasilikos Valley provides an interesting case study, because it gives us the opportunity to see the relationship between multiple concurrently occupied PreBA settlements located in close proximity with each other, a situation not known in the central region of Cyprus. It is a fascinating quandary that there are so many sites identified as settlements within the boundaries of the VVP survey, and so few cemeteries. This means that either settlements were sharing cemeteries or a disproportionate number of cemeteries went unidentified or were destroyed by subsequent occupation modern or otherwise. A third possibility, though at this time completely unsubstantiated, is that many of the smaller dispersed settlements that are seen in the valley may have had different funerary customs – perhaps intramural burials or cremation. It is true that so far only 80 tombs are known from the cemetery at Kalavasos. This number is suspected to actually be much higher, with much of the site obscured or destroyed by the modern village, but it has yet to be fully determined whether this cemetery is large enough to be the only burial ground for dozens of settlements in the valley for the duration of the Prehistoric Bronze Age.

The Kalavasos Village cemetery has been suggested by the investigators of the VVP to be an instance of a centrally located cemetery serving multiple settlements, a pattern markedly different from that seen in the other case studies. It is important to note that of the several seemingly large settlements identified by the VVP survey, only the settlement at Mitsingites is confirmed to have its own clearly associated cemetery (Figure 36). Located approximately a kilometer south of Kalavasos Village, the two of the largest sites in the valley, Lourca and Mitsingites, face each other on opposite

sides of the valley, seaparated by less than half a kilometer. Mitsingites may have been occupied earlier, but evidence indicates that were probably occupied simultaneously for most of the PreBA2. Significant quantities of PreBA ceramics were discovered at Kokkino Kremmos, between Lourca and Mitsingites, during the digging of irrigation trenches in alluvial plots adjacent to the Vasilikos river. While no architectural evidence was uncovered, this suggests that a settlement site having minimal surface indications may lie beneath the alluvium.[268] This would bring Lourca and Mitsingites closer together and could even indicate that the sites are part of a larger settlement.

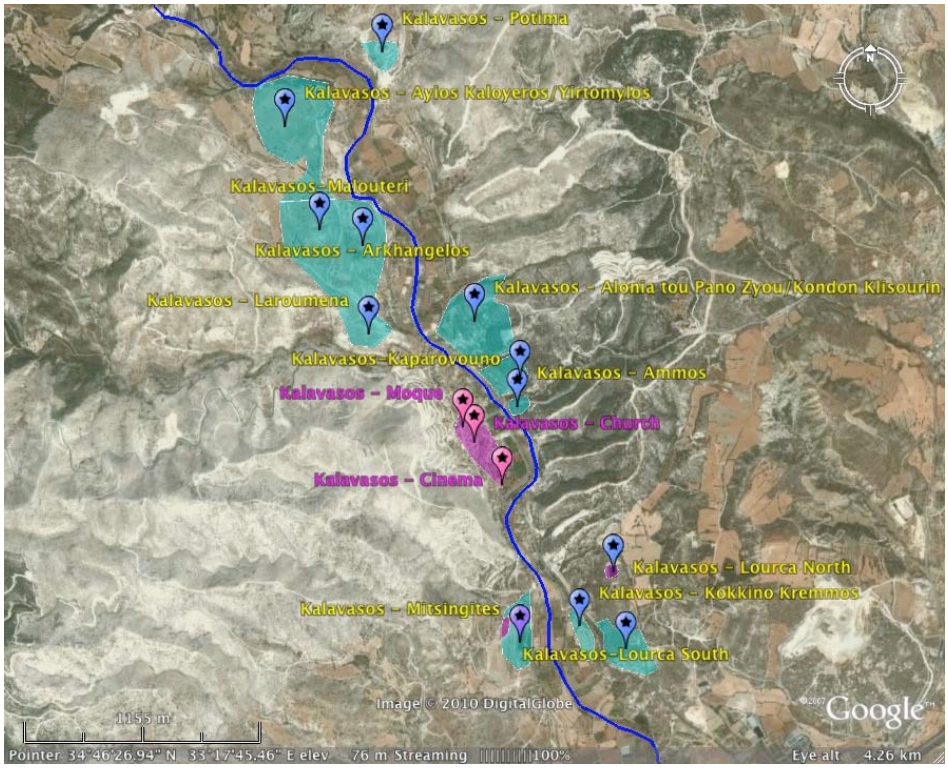


Figure 36 - Google Earth image of the central Vasilikos Valley. PreBA cemeteries are marked in magenta, and settlements in cyan. The modern path of the river has been highlighted in blue.

[268] Todd, 1988: 138

With the exception of Mitsingites, there is no convincing evidence for any of the other settlements in the Vasilikos Valley to have their own separate cemeteries. This leaves the single extensive cemetery, centrally located in the vicinity of the modern village of Kalavasos, to have served as a shared cemetery for the inhabitants of multiple settlements, several of which are found over a kilometer away. The Vasilikos Valley narrows significantly in the area of the village, restricting the path of travel so that all communication between the upper and lower portions of the valley has to pass by this location.

The presence of the modern village directly atop the cemetery site has limited excavations to opportunistic rescue projects, so any attempts to recognize sub-clustering of tombs is impossible. However, the chronological development of the cemetery does indicate that it was in use for the duration of the Bronze Age occupation of the valley, and that the cemetery appears to have expanded northwards, most likely as it became full. This indicates that the inhabitants of this valley thought it preferable to continue their association with the same cemetery, rather than open up new locations for internments.

Discussion:

In the four case study Prehistoric Bronze Age communities, where locations of both settlements and cemeteries are known with some confidence, the importance of proximity to, yet distinct physical separation from, the associated settlement is only partially substantiated.

Marki-Alonia, the largest excavated settlement with the longest occupation as well as the earliest confirmed occupation, is located in an area of open unrestricted terrain. It is ringed by cemeteries, all of which are between 400 and 800 meters from the excavated settlement (Figure 37). Chronological data suggests that the cemetery

sites to the northwest of the site were preferentially used, but as space became a problem new internment areas were opened. During this later period, cemeteries were spread out over a larger area, and multiple distinct internment areas appear to have been in use at the same time, most likely indicating that different corporate groups were using different cemeteries simultaneously. Within some of these later cemeteries, tombs can be seen to have been grouped into even smaller clearly bounded clusters. This could represent a decrease in the importance placed on membership in the settlement, and a corresponding increase in the importance of kin-group membership.

Cemetery	Tomb Types	Distance to Settlement	Dates		Distribution
Davari-Upper	Pit	500 m	PreBA 1	Philia	Uniform
Davari-Middle	Pit	450 m	PreBA 1	Philia(?)-ECII	Uniform
	Chamber		PreBA 2	ECIII-MCI	Uniform
Davari-Lower	Pit	400 m	PreBA 1	ECI-ECII	Uniform
Davari/Kappara	Pit	600 m	PreBA 1	ECI-ECII	Uniform/Single Cluster
Kappara	Chamber	750 m	PreBA 2	ECIII-MCI	Uniform
Vounaros	Chamber/Pi	250 m	PreBA 2	ECIII-MCI	Linear/ Single Cluster
Vounaros/Pappara	Chamber	300 m	PreBA 2	ECIII-MCI	Multiple Clusters

Figure 37 - Table summary of cemetery and tomb placement at Marki.

Similarly, the later site at Alambra-Mouttes is also surrounded by cemeteries, but the association of two furthest cemeteries with the settlement excavated at Area A has been called into question, and it is proposed that these interment areas may instead be associated with another settlement or settlement area in the vicinity of "Gjerstad's House." The remaining four cemeteries still surround the apparent area of habitation, but Cluster III and Cluster IV are within 50 meters of evidence for architecture (Figure 38). If these sites are confirmed to be cemeteries, their proximity to habitation, possibly within the settlement itself, is in stark contrast to the distances observed at

Marki and other sites. Cluster I and II are aligned heading directly downslope from the habitation area, and at approximately 250 and 400 meters from the closest evidence for architecture, appear to be clearly separate from the settlement. It would be interesting to know whether one area came into use earlier than the other, but only one tomb from either of these clusters has been investigated. This tomb, Al. 101, was located in Cluster II, the closer of the two clusters, and it was dated to earlier than the known habitation levels at Mouttes.[269] If the tombs in Cluster I are found to date later than Cluster II, this would indicate a similar pattern of cemetery expansion as seen at Marki with Davari and Kappara.

Cemetery	Soil	Tomb Types	Distance to Settlement	Dates		Distribution
Cluster I	Calcareous	Chamber	450 m	PreBA2	MCI-MCII?	Mulitple Clusters
Cluster II	Calcareous	Chamber	250 m	PreBA2	MCI-MCII?	Multiple Clusters
Cluster III	Calcareous	Chamber	50 m	PreBA2	MCI-MCII?	Uniform?
Cluster IV	Calcareous	Chamber	50 m	PreBA2	MCI-MCII?	Uniform?
Cluster V	Volcanic	Pit	400 m	PreBA1/2	ECII-ECIII	Multiple Clusters
Cluster VI	Volcanic	Pit	100 m	PreBA1/2	ECII-ECIII?	Linear

Figure 38 - Table summary of tomb and cemetery placement at Alambra.

The small settlement at Sotira-Kaminoudhia has only one associated cemetery, clearly separated from the settlement. This cemetery currently may be divisible into separate clusters of tombs, but this may also be an artifact of the excavations. However, the three tombs in "Cemetery B" do appear to be a spatially bounded cluster, and as such may represent the intentional separation of a kin-group from the corporate body of the village. Though a number of the tombs in Cemetery A appear to

[269] Coleman et al, 1996: 118

predate the settlement, tombs of different dates are seemingly intermixed, revealing no discernible pattern of cemetery expansion over time.

The single large cemetery in Kalavasos Village appears to have served many settlements throughout the Vasilikos Valley, particularly those to the north and east, which were spread out over a distance of several kilometers, far exceeding the distances seen at the other sites. The expansion of the cemetery over time, rather than the opening of new interment areas, indicates that burial in this location was important to the inhabitants of the valley. The use of a communal burial ground by multiple settlements also suggests a network of social relations, possibly partially kin-based, between these settlements. The cemetery would have served as a central, shared, and ritually marked space, around which a larger valley-wide community was focused.

The cemetery at Mitsingites may have also served some inhabitants of Lourca on the western side of the valley, but the proximity of the Village cemetery to these settlements, strongly suggests that they were also considered part of this larger valley-wide community. Perhaps some inhabitants of this settlement were buried in the Village cemetery, and only members of a particular corporate group were placed in the cemetery at Mitsingites. This hypothesis is supported by the difference in tomb architecture seen between the Village cemetery, where only smaller single or double chambered tombs have been discovered, and Mitsingites, where tombs can be seen with large dromoi and multiple larger chambers. The tombs in the Village are also located on the lower slopes of Angastromeni, while the tombs at Mitsingites are atop a prominent plateau at the southern mouth of the valley. The difference in tomb architecture and location in tombs in use during the same period within the same community indicates the development of significant differences in rank or status between the occupants of the tombs at Mitsingites and those in the Village.

To sum up, the communities at Marki and Sotira comfortably demonstrate the assumed pattern of relationship between cemetery and settlement in the PreBA, being clearly bounded and located a marked distance from the associated settlement. Alambra also demonstrates this pattern at least partially, particularly if the two cemeteries to the south are in fact associated with a different settlement, as proposed.

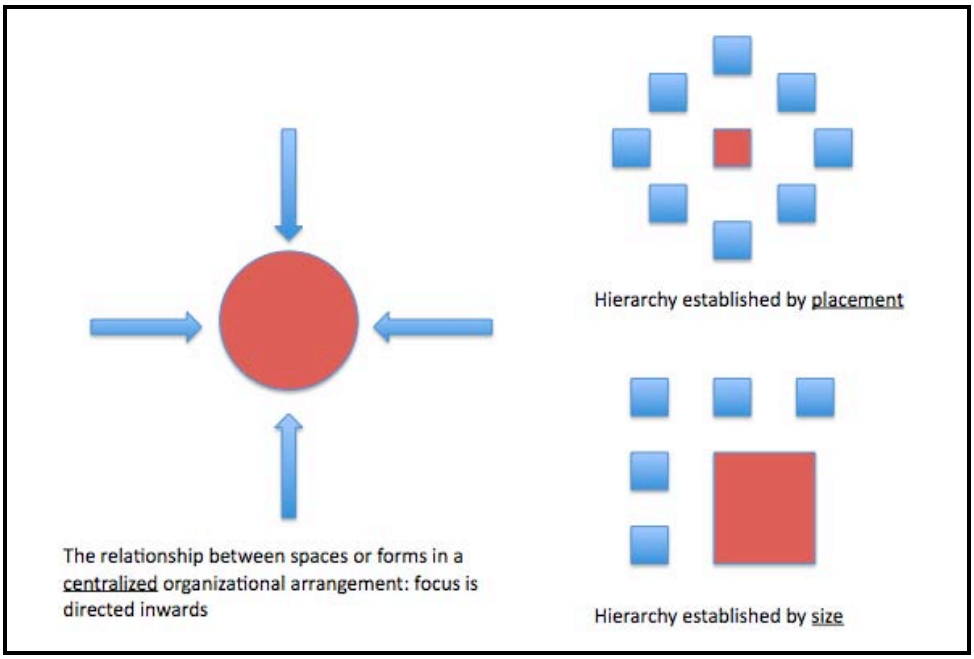


Figure 39 - Illustration of concepts of spatial organization (adapted from Ching 1979: 207, 351)

This type of arrangement might be geometrically simplified to a circle, which when discussing architectural space is considered a centralized and introverted figure, balanced around a single locus.[270] A more nuanced description would be that of the "centralized spatial organization," where a number of secondary forms (e.g. the cemeteries) are grouped around a central dominant space (Figure 39).[271] Both related

[270] Ching 1979, 54-55
[271] Ibid., 205.

methods for describing space, the circle or the centralized organization, establish a hierarchical arrangement of space. In hierarchical compositions, the importance or significance of a space is articulated by its size, shape and placement relative to the other spaces of the organization. In centralized organizational forms, the most hierarchically important space by placement is that in the center,[272] which in the organization of space seen at Alambra, Marki, and Sotira would be the settlement. The settlement is also hierarchically more important because of its significantly greater size.[273]

The confirmation of the presence of tombs at the locations called Cluster III and IV would also be of great interest, because their close proximity with residential architecture may show a significant variation in mortuary practice. Perhaps in this later period, some inhabitants of the village were being buried in cemeteries associated with corporate groups that were asserting their claim on arable land outside the village, while other corporate groups, perhaps of lower rank or more concerned in activities other than agriculture, were buried in close proximity to the settlement, or even within the settlement itself.

However as has been shown, the cemeteries and settlements of the Vasilikos Valley clearly show that this was not the only pattern observable in the mortuary landscapes of this period. All evidence points to the use of one central cemetery by multiple settlements, representing close social ties among a population spread over several settlements. Here, in contrast to the other examples, the cemetery becomes the centrally located social space of the community, rather than an individual settlement. This places the cemetery at the location of greatest hierarchical significance in the

---

[272] Ibid., 351.
[273] Ching 1979, 351.

spatial organization of the community. The large size of the cemetery would also have contributed to its status in the spatial hierarchy.

The presence of one other cemetery, at Mitsingites, could represent a single settlement setting itself apart from the wider community in the valley, or this separate interment area may have been used by a particular social group, perhaps elevated in rank or status, that might not have had its membership limited to only one settlement but could have held elevated social rank relative to the valley as a whole.

This relates to another pattern repeatedly seen in PreBA mortuary landscapes, which is the clustering of tombs into multiple cemeteries or distinct clusters within a single cemetery. Without a significantly larger body of tombs excavated and the contents published in conjunction with spatial data, the significance of this pattern cannot be confidently stated, but it is proposed that these clusters probably represent a visible statement of corporate membership in subgroups of the wider community, most likely to be kin-based, though differences in status or rank are also possible. These corporate groups might also display their political or filial alliances with other groups by having adjacent or proximate cemeteries.

B. Viewing the Dead

The second half of the assumption about location of PreBA cemeteries in Cyprus is that they are visible from the settlements with which they are associated. Like the assumptions about the terrain, distance, and form of PreBA cemeteries this hypothesis has never been formally tested against the available data.

Marki

Beginning again with the earliest of the four community case studies, Marki-Alonia, we have multiple cemeteries to consider. The three cemeteries to the north of Alonia are Davari, Kappara, and the small knoll of Davari/Kappara between them. The published 1999 survey reports that Alonia is visible from the locations of all the tombs at Davari and Davari-Kappara. These findings were confirmed during the author's 2008 and 2009 visits to the site, but the lines of sight from Davari-Kappara to the excavated portion of Alonia were found to be partially obscured by the lower tier of Davari. It is possible that the investigators of the 1999 survey were taller than the author, or that they were making assumptions as to the height of the buildings at Marki or to the western extent of the village, both cases which would have improved inter-visibility (Figure 40).

The cemetery at Kappara, likewise, is on a prominent ridge and its eastern and southern slopes are visible to and from the village at Alonia, but only by looking directly over the sites of Davari/Kappara and the lower tier at Davari. These three cemeteries also have full intervisibility between them, and the scarps of Davari and Kappara are readily recognizable landmarks.

Another feature of the location of the tombs in the cemeteries at Davari and Davari/Kappara is that the majority of the tombs are placed on slopes that are angled in the general direction (south or southeast) of the settlement at Alonia, so that

the tombs literally face the settlement. In the case of the chamber tombs, the tomb would have had an entrance at one end, giving the tomb a distinct directionality, and the tombs on the middle tier at Davari were recorded as all being aligned north-south. This alignment might be related to geology, but does coincide with the location of the settlement. The most western of the line of tombs is dig into the western slope, but at this location the slope is gentle enough that an individual standing at the tomb would still be able to see the settlement, if not vice versa.

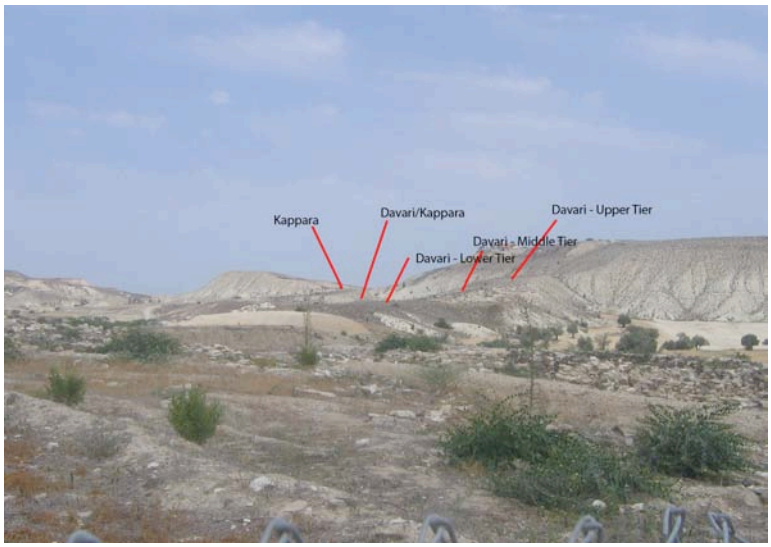


Figure 40 - The cemeteries at Davari, Davari-Kappara, and Kappara as seen from the excavated portion of Alonia.

Kappara is different from Davari and Davari/Kappara in that not all of its tombs are on the south or east facing slope, and many of them would have not had a direct line of sight with the settlement at Alonia. If we accept the hypothesis that intervisibilty was an important feature of PreBA cemeteries another explanation for these tomb locations must be found. One possibility is that this ridge's location, in a direct visual line with the earlier cemeteries at Davari and Davari/Kappara and the settlement at Alonia was considered sufficient to the inhabitants.

Another possibility is that these tombs were not actually associated with Alonia at all. There is a PreBA site located southwest of Kappara, identified as a settlement by surface scatter found on survey, called Marki-Palioklichia. There were RP sherds found there, suggesting an MC occupation, and if so Kappara would be the closest cemetery with concurrent material, so it is seems possible that some or all of the tombs at Kappara are associated with the inhabitants of this site.[274]

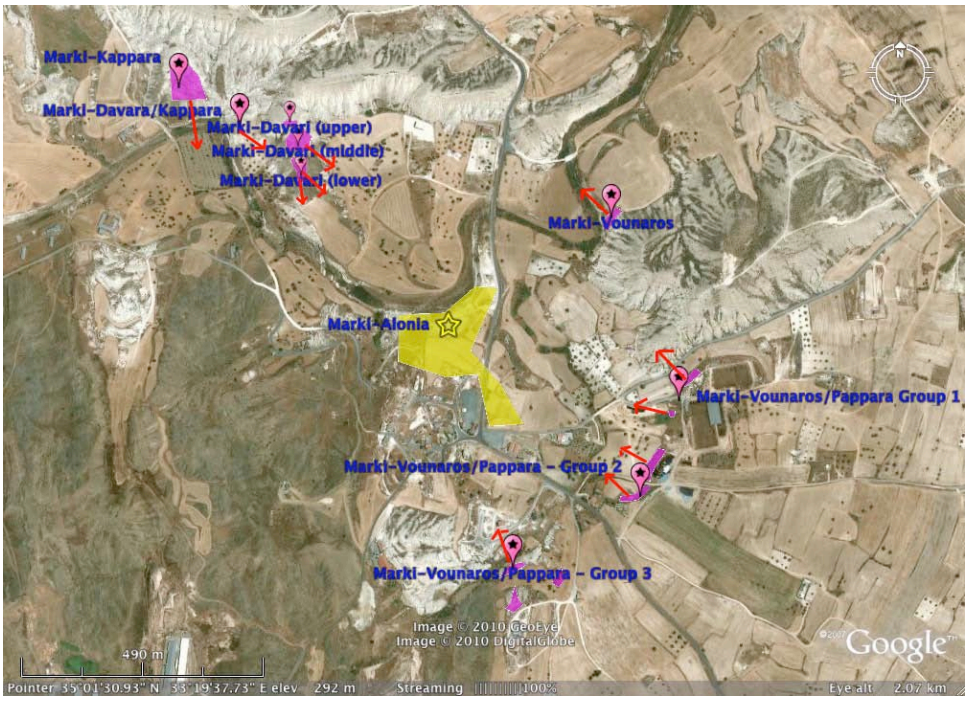


Figure 41 - Google Earth image of the cemeteries at Marki with primary direction of slope indicated by red arrows.

The tombs at Vounaros were also reported in the survey to be fully intervisible with Alonia, but this may be part of the confusion about which cemetery is actually Vounaros. The tombs in the cemetery actually located at Vounaros are located on a

[274] Frankel and Webb 1996, 7

northwest-facing slope of a hill located northwest of the settlement, so that any view of Alonia would be at an oblique angle, and the whole settlement, which is believed to have extended further south of the area excavated, would not have had full intervisibility (Figure 42).

Figure 42 - Vounaros cemetery and hill as seen looking east over the northern excavations at Alonia

The orientation of these tombs may be viewed as problematic if one expects tomb entrances to be preferentially pointed in the direction of the associated settlement. Vounaros hill has other slopes that are directed towards Alonia, but no evidence for tombs has been located in these areas. The location of the tombs would have been visible from the northernmost reaches of the settlement, but if instead the tombs were to look out over the farmland belonging to a kin group, there are extensive level areas northwest and north of Vounaros, where no potential settlement remains have been identified, but were most likely have been suitable for cultivation. Also, the

hill of Vounaros itself is highly visible in the landscape and may have served as a landmark, marking the location of the cemetery in the minds of the local population

The cemetery (or cemeteries) of Vounaros-Pappara in contrast have clear intervisiblity between all tombs and the settlement at Alonia, looking out towards the settlement over a gently sloping plain, which most likely would have been under cultivation during the settlement's occupation (Figure 43). All these chamber tombs are located on slopes that would angle the tomb entrances directly towards the settlement, as well as towards the cemeteries at Kappara and Davari, past the settlement. Again, the cemetery at Vounaros was largely blocked from the view of the Vounaros-Pappara tombs by the large hill at Vounaros.

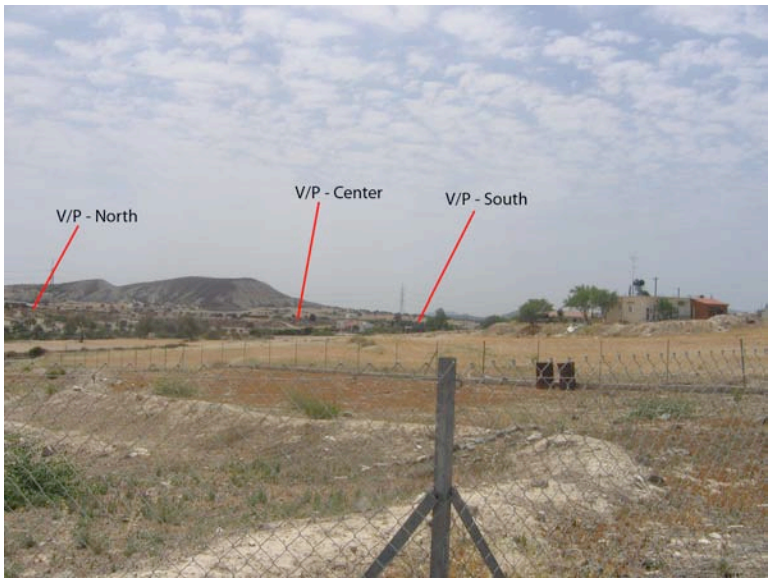


Figure 43 - Cemeteries at Vounaros/Pappara as seen from the western edge of Alonia.

Alambra

The cemeteries identified as Clusters I-IV are spread over the northeastern slopes at Alambra-Mouttes, and all would have been intervisible with at least

significant portions of the settlement at Mouttes. This is similar to the pattern seen at Marki-Alonia, with multiple intervisible cemeteries ringing the habitation area (Figure 44).

Figure 44 – View southwest from Cluster I towards the crest of Mouttes, where Clusters III and IV are located. The habitation would have covered the area in between. Area A is out of the field of view to the right. Clusters V and VI are on the far side of the hill.

However, this pattern does not hold true for the cemeteries identified as Cluster V and Cluster VI, because their location on the lower western slopes of the ridge blocks the view. Also in contrast to Clusters I-IV, these two clusters are located in the pillow lavas and do not appear to have any chamber tombs, with only pit or closed-pit tombs having been identified. If intervisibility between cemetery and settlement is important in the PreBA, then another location for the population buried in Clusters V and VI would be expected. Einar Gjerstad excavated one building on lower northwestern slope of the ridge, and a dense scatter suggests a larger occupation may

be present, but the extent of the architecture and the relationship between it and Mouttes is completely unknown. Also, Gjerstad assigned the house an ECIII date, making it concurrent with tomb Al. 105 in cluster V. Both Cluster V and Cluster VI would have been visible from a settlement in the location of "Gjerstad's House," lending credence to the suggestion that, if intervisibility was a deciding factor in cemetery location, then these tombs are not associated with Mouttes, but with this other habitation area.

Sotira

Sotira-Kaminoudhia is the smallest of the settlements considered in this study and appears to have only one mortuary area (divided into Cemeteries A and B), located in a small valley 100 meters northeast of the settlement. The three isolated tombs on the west facing slopes of the valley, the so-called Cemetery B, would have had a clear view of the settlement, as would any found in the center of the valley. However, the majority of the tombs that have been identified and excavated were located on the east facing slopes on the western side of the valley, and these would only have had at most a very oblique view of only the eastern portion of the settlement. With no knowledge of the contents of the tombs or other chronological data available from Cemetery B, its relationship to Cemetery A and the settlement must remain unknown (Figure 45).

However, it is curious that no further tombs could be found on this slope or on the southern facing slopes of the hill to the north of the settlement, which if direct intervisibility with the settlement was a feature of a desirable location for a cemetery, would have been preferable to the obscured western side of the valley. Perhaps the settlement extends significantly further to the east than is currently known, hidden under the deeper alluvium that might be found at the mouth of the small valley, but as

yet there is no evidence for this. Another possibility that must be considered then is that the intervisibility with the western portion of the cemetery was an acceptable substitution for being able to view all of it. The recognition of a part as representative of the whole in a known feature of human cognition, referred to as metonymy, or in this case visual metonymy.

Figure 45 - View from the settlement at Kaminoudhia northeast towards the valley where the cemeteries are located. Cemetery B would be visible directly ahead in the center of the photograph if trees were not obscuring the line of sight.

This area is heavily wooded today, as much of Cyprus would have once been. When the author visited the site, the area of the cemeteries was largely obscured by trees, though the mouth of the small valley was still easily recognizable. This serves as an important reminder that for some areas intervisibility studies performed by computer on the basis of terrain may not provide the complete picture. It is impossible to know whether the inhabitants of SK would have cleared the vegetation from the

area of their cemetery, allowing a clear view, or whether the proximity and the view of the valley entrance would have been sufficient.

Vasilikos Valley

The situation in the Vasilikos Valley is drastically different from that of the smaller communities discussed above, with all indications pointing to the use of one cemetery by multiple settlements. There are several small settlements that have been identified, mostly on the west facing slopes on the opposite side of the river from the Village, that would be able to see and be seen from the cemetery. However, this only represents a portion of the large number of suspected settlement sites that do not have cemeteries.

Figure 46 - View from the northern tip of Laroumena SE towards Kalavasos Village. The portion of the modern village where the PreBA cemetery is known to be located (i.e. the mosque, church, and cinema) are obscured by the lower slopes of Angastromeni.

Another consideration is that at this point in the valley the east facing slopes, on the lower reaches of which the cemetery is found, rise up sharply to the peak of Angastromeni, the highest hill in for several kilometers, and a major landmark visible from the copper mining region to the north all the way to the coastline in the south. While the tombs in the Village area are located at elevations of approximately 60-100 meters above sea level, the crest of the hill is over 200 meters above sea level, and likewise its highest point commands a view from the Troodos Mountains to the sea. As another example of visual metonym, this landmark could have served as a marker of the location of the cemetery for settlements much further afield then those intervisible with the location of the actual tombs (Figure 47).

Figure 47 - View of the prominent peak of Angastromeni from the northern valley.

Discussion:

Marki-Alonia all at least partially visible from the settlement. The chronological data also suggest that the prominent ridges, clearly visible to the northwest of the settlement were preferentially used as cemeteries until space became

a problem. Portions of these cemeteries, particularly Kappara and Vounaros, are obscured from view of the settlement. Kappara is directly behind two earlier cemeteries and Vounaros is on a very prominent hill, which suggests that a visual cue in the landscape, in the form of part of the cemetery or a visually distinct landmark, may have been acceptable in place of full intervisibility (Figure 48). However, an alternative settlement association has been proposed for Kappara, with which there was full intervisibility, but this can only be confirmed by a comparative analysis of artifacts from both sites.

Cemetery	Date	Intervisibility with Alonia		Landform	Visually Prominent	Tombs Face Settlement
		Full	Partial			
Davari	PreBA 1	x		scarp	yes	yes
Davari/Kappara	PreBA 1		x	knoll	no	yes
Kappara	PreBA 2		x	scarp	yes	no
Vounaros	PreBA 2		x	hill side	yes	no
Vounaros/Pappara	PreBA 2	x		low ridge	no	yes

Figure 48 - Table summary of cemetery visibility and contributing factors at Marki.

The four clusters of tombs on the northeastern flanks of the Mouttes-Spileos range would all have been intervisible with the settlement excavated at Area A and also with each other. Cluster III and IV may have even been within the confines of the settlement, but Cluster I and II appear to be clearly separated from the settlement. These cemeteries are in line with each other as one looks down the slope from the habitation area, so that Cluster I appears to be behind Cluster II, a pattern reminiscent of Kappara and Davari at Marki. It would be most interesting to know whether the further of the two cemeteries came into use after the closer one, but without further survey or excavation, the available chronological data is insufficient to allow such analyses.

The two cemeteries on the southwestern flanks, though, would have been completely obscured from the settlement excavated at Mouttes and the four other tomb

clusters. However, there is evidence that they are chronologically associated with the proposed settlement in the vicinity of Gjerstad's House located on the same side of the Mouttes-Spileos ridge. Both cemeteries would have been intervisible with a settlement in this location, and there is full intervisibility between the cemeteries as well. Thus, all six tomb clusters at Alambra would have been visible from some sort of habitation area, and likewise the issue of visibility supports the association of Clusters V and VI with Gjerstad's House, rather than the settlement on Mouttes (Figure 49).

Cemetery	Date	Intervisibility with Mouttes		Landform	Visually Prominent	Tombs Face Settlement
		Full	Partial			
Cluster I	PreBA 2	x		slope	no	yes - inverted
Cluster II	PreBA 2	x		slope	no	yes -inverted
Cluster III	PreBA 2	x		slope	no	yes
Cluster IV	PreBA 2	x		slope	no	no
		"" with Gjerstad's House				
Cluster V	PreBA 1/2		x	low hill	no	no
Cluster VI	PreBA 1/2	x		slope	no	yes - inverted

Figure 49 - Table summary of cemetery visibility and contributing factors at Alambra. If facing is inverted, the cemetery is downslope from the settlement, so the settlement faces the cemetery.

The small settlement at Sotira-Kaminoudhia has only one cemetery, which is only partially intervisible with the habitation area. The isolated location of three tombs in "Cemetery B", whose entrances are angled directly towards the settlement, while the rest of the tombs in the valley would have a partially obscured view, again presents evidence for the use of visual metonymy or synecdoche in the location of the cemetery (Figure 50). While the full extent of the cemetery is not visible to the settlement, at least one part of it was, marking the location of the whole cemetery in the minds of Kaminoudhia's inhabitants.

Cemetery	Date	Intervisibility with Kaminoudhia		Landform	Visually Prominent	Tombs Face Settlement
		Full	Partial			
Cemetery "A"	PreBA1/2		x	valley	possibly	no
Cemetery "B"	Unknown	x		valley	possibly	yes

Figure 50 -Table summary of cemetery visibility and conributing factors at Sotira.

Also as stated earlier, these three tombs, among the largest excavated at this site and in a clearly bounded cluster, may represent the intentional separation and marking of a group differentiated by kinship or some other quality from the corporate body of the village. Accepting the premise that the visibility of the cemetery was important, it is interesting to consider whether the superior visibility of these three particular tombs represents preferential treatment of those buried there, and thus provides evidence for status differentiation within the settlement.

The location of the two known cemeteries in the Vasilikos Valley is particularly interesting. The Village cemetery is located on the lower slopes in one of the narrowest points in the valley, which severely restricts the area to which it is even partially visible. Now, as the valley itself must have served as the major communication route between settlements, this central location would be subject to heavy traffic, so that the site would be viewed by anyone passing up or down the valley. However, and perhaps more significantly, the location of the cemetery is also marked by a major topographical landmark, the hill of Angastromeni. While the cemetery itself was presumably not visible to a large portion of the community that was using it, Angastromeni is visible from the coast all the way to mining areas in the very northern reaches of the valley. Given the abundance of topographically and geologically appropriate limestone slopes in the valley that could have been used for cemeteries, the choice of this singular location cannot be imagined to be coincidental. In this clear application of visual metonymy, the peak of Angastromeni is a metaphor for the cemetery located at its base.

In all instances, a clear visual relationship between settlement and cemetery can be established, which supports the commonly stated assumption that intervisibility was an important factor in the choice of cemetery location during the PreBA on Cyprus. However, the necessity of full intervisibility is not supported, and in multiple

instances partial visibility or visibility of a prominent landmark appears to be have been sufficient in place of full intervisibility. This indicates that visual metonymy or synechdoche, i.e. the recognition of part-whole or contiguity relationships, was an important aspect of Prehistoric Bronze Age cognition of the mortuary landscape and the construction of their mental communities.

C. Marking the Dead

The PreBA cemeteries of Cyprus were sometimes in use for hundreds of years, often with hundreds of tombs built. It is also known that individual tombs were subject to reuse, with multiple burials spread out over an extended period of time, possibly even generations. The construction of multiple tombs in close proximity and the reuse of some tombs indicates that the population using a cemetery must have had knowledge of where earlier burials were located, in order to facilitate the reopening of tombs for subsequent interments and to allow the construction of new tombs without the inadvertent destruction of earlier ones. But, while there is notable variation in tomb architecture during the PreBA, from simple oblong pits dug in the looser limestone fanglomerate or dark volcanic soils, to various types of shaft, bell-shaped, and chamber tombs carved into the limestone hills and plateaus, little is known about what would have been visible on the surface to mark the locations of burials.

For rock-cut chamber tombs, one possibility is that the dromos of the tombs was left open between interments, with only the individual chambers sealed with a *plaka* between openings. Depending on the site, period, and number of chambers, the size of the dromos of a chamber tomb ranged from a meter or less in diameter, as in some tombs at Sotira-Kaminoudhia, to over 3 meters in diameter, as in some tombs at Kalavasos Village. If these dromoi were left open between uses, as seems most likely, the tombs would have been clearly visible. Whether they remained open after the final interment remains a question, which could be ascertained by careful stratigraphic excavation to determine whether the dromoi had been filled as a single event, or by the gradual effects of erosion.

The other tomb types in use during the PreBA did not have dromoi, and so it must be imagined that some other method was being employed by the community to mark the locations of these tombs. It is also possible that chamber tombs would have

had surface markers, if the dromoi were filled after final interment, as it would still be necessary to know where the tombs were located to prevent their disturbance during future episodes of construction. As no significant architectural constructions have been found over tombs from this period, it is worth considering what other objects may have been used for this purpose. It is necessary to remember that these markers could have been made of wood or some other material that has left little or no trace in the archaeological record, but it is also possible that objects being used as tomb markers have survived but have been overlooked or misidentified. With his possibility in mind, the reports from all of the cemetery investigations used for this study were reviewed for possible evidence of tomb marking.

Marki

The initial survey of the Marki region prior to the excavation of the settlement recorded some general remarks about the types of archaeological material seen on the surface at each site. At most of the cemeteries only the presence of ceramic sherds was recorded, but the investigators make special note in reference to the cemetery at Marki-Kappara, that "an unusual feature of this site is the presence of querns associated with individual tombs.[275]" A quern was also found at Marki-Pappara. The researchers suggested that Pappara may have also had a habitation, but any evidence for a settlement was destroyed by the construction of the dairy farm.[276] As no evidence for a settlement was found during the later investigations at Kappara, it seems unreasonable that a similar surface assemblage at Pappara should be interpreted as evidence for anything other than a cemetery.

---

[275] Frankel and Webb 1995, 121
[276] Frankel and Webb, 1995: 124

Figure 51 - A quern, or Type 2 Rubber, of the kind found at Marki. The author found this particular example in the cemetery at Kalavasos-Mitsingites.

The presence of large pieces of worked stone was noted at Kappara several times. In the early 1980's Stuart Swiny, the excavator of Sotira-Kaminoudhia, had visited Kappara and also noticed the presence of what he called Type 2 querns, in addition to a gaming stone.[277] When the first volume of the publication of the Marki-Alonia excavation was published, the description of the artifacts found at Kappara was amended to say "stone rubbers," and the items identified by Swiny as querns are also reinterpreted as stone rubbers (Figure 51). On the surface were also visible several displaced stomion blocks, and though the number of blocks and their dimensions are not reported, the are noted to be smaller than those seen at Davari. Also noted are the presence of, "other smaller and more regularly shaped rectangular or oblong blocks

[277] Swiny, 1986: 36

with naturally or in at least one case artificially flattened faces," which are suggested as possible grave markers.[278]

Complete Rubbers from Marki			
Catalogue #	Length	Width	Material
S8	450	157	diabase
S23	402	135	diabase
S31	378	162	diabase
S64	420	141	diabase
S74	360	186	diabase
S77	342	122	diabase
S103	518	141	diabase
S121	375	177	microgabbro
S131	300	174	diabase
S136	355	150	diabase
S137	357	162	diabase
S138	380	190	microgabbro
S139	387	177	diabase
S140	390	165	diabase
S152	297	150	diabase
S180	360	198	diabase
Average	379.4375	161.6875	
Median	376.5	162	

Figure 52 - Table of Rubbers/Type 2 Querns from Marki (from Frankel and Webb 1996, 89-101)

Unfortunately no illustrations or measurements have been published of the rubbers, stomion blocks, or the regularly shaped blocks with flattened faces. However, the eight rubbers, five of which were found in situ next to an individual tomb and three that were on the lower slopes of the hill, are all recorded to be intact, though some heavily used. Fortunately, other intact examples of rubbers are known from the settlement at Alonia (Figure 52), and given their regularity in size, shape and material, an approximate description of those found at Kappara can be made: roughly 380 cm long and 160 cm wide and probably made of diabase, a dark grey, finely textured

[278] Frankel and Webb 1996: 6

igneous rock, which appears in large outcrops in the Troodos Massif and can appear in the flow basins of rivers, such as the Alykos, as Alluvium or Colluvium deposits.[279]

The dark color of diabase stands out clearly against a background of white limestone, making it an appropriate material choice for a grave marker in a landscape of light colored calcareous soils, as visibility must be assumed to be a desirable attribute for an object serving the function of marking a location in a landscape. The sufficiently large size and distinct, unnatural shape would also cause these rubbers stand out against the landscape to the human eye, whether they were set flat on the ground, or even more so if stood on end. These rubbers would normally be used either as small querns with another smaller ground stone, or with larger querns. Their association with individual tombs and the lack of any other ground stone artifacts found in the vicinity suggest meaningful and intentional placement, while making the interpretation of their presence as functional objects used for food preparation seem improbable.

The other stone objects found at the cemetery were described as "regularly shaped… blocks with… flattened faces," were also not published with measurements, drawings or photographs, but the investigators do state that they are similar to an object in an MC tomb from Gallinoporni, a site on the Karpas Peninsula in the northeast of Cyprus. In the publication the object appears in a detailed diagram of the tomb, from which we can very roughly estimate its dimensions to be 30 cm long and 15 cm wide, i.e. of roughly the same size and shape as the rubbers from Marki. The object is only described in the text as a "slab" that may be like the "menhir" stones found in tombs at Lapithos and Vounous.[280]

---

[279] *The Building and Decorative Stones of Cyprus,* PDF published by the Cyprus Geological Survey of the Cyprus Ministry of Agriculture, Natural Resources, and the Evironment, 2008: 2
[280] Astrom, 1960: 133, Fig. 1

The "menhir" stones from Lapithos and Vounous that Astrom mentions in the publication of the tomb at Gallinoporni are only described in the vaguest terms in the Swedish Cyprus Excavation's volume on the MC period[281], but when the original publications of Vounous and Lapithos are consulted, more information can be discerned. The two objects at Vounous (nos. 14 and 15, both from Tomb 2) are described as, "plank shaped idols of gypsum of the type usually occurring in Red Polished ware.[282]" They are recorded to be 15 and 22 cm long, respectively, and both a drawing and photograph were published, clearly showing the marked resemblance to the Red Polished ceramic plank figurines also known from the period.

Neither of these "idols" resembles the object drawn in the plan of the tomb at Gallinoporni nor the objects described from the surface of Kappara. However, one object is described as "Fragments of a large, plank-shaped idol of local marble," which sounds very similar to the suggested plank idols found at Vounous. The other, in contrast, is described as an, "Oblong menhir of local stone, tapering at one end. Length 70.4 [cm]." This object does not sound like it resembles the plank idols, the slab from Gallinoporni, nor the rubbers from Marki, and all of this is greatly complicated by the fact that ground stone objects are almost never recorded as found within PreBA tombs.

That the stone objects at Vounous and Gallinoporni were found within tombs raises the possibility that the rubbers and other stone objects recorded at Kappara may also have originally been located within tombs and, having no value on the antiquities market, were simply cast to the side by looters. Sadly, no mention is made by the investigators at Marki as to whether either class of stone object found on the surface at Kappara was located in association with looters' refuse piles. None of the objects

---

[281] Astrom, 1972: 159, 256
[282] Dikaios, 1940: 9, 137, Fig. 37, Plate XXXIIa

found inside PreBA tombs at Gallinoporni, Lapithos, or Vounous actually match the very rough description of the rectangular or oblong naturally shaped "blocks" at Marki-Kappara. The description in the Marki publication, in indicating their resemblance to the larger stomion blocks, suggests that they are also of an imported stone. However, the inconsistencies between the descriptions of these objects found within tombs and those found on the surface, and the known rarity of ground stone objects from within PreBA tombs, makes it likely that these objects were originally located on the surface.

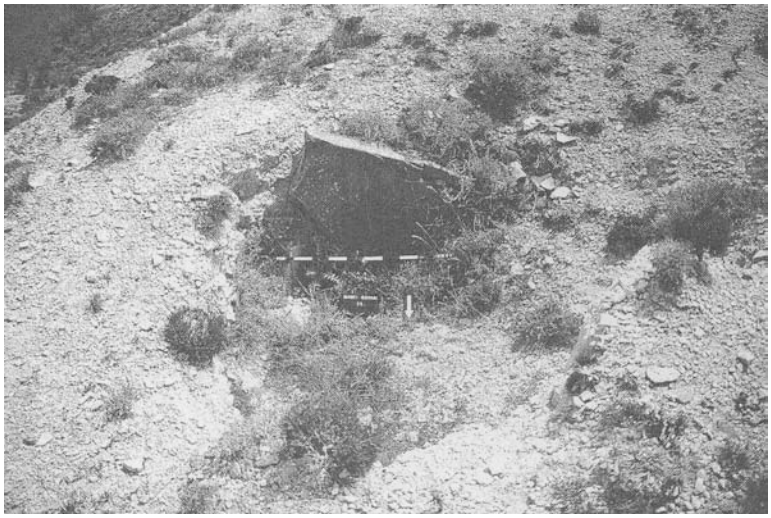


Figure 53 – Large stomion block of imported stone at Davari Tomb 35 (scale 1m). (Sneddon 2002, Pl. 8)

The cemetery at Davari also has stone objects recorded in association with some of the tombs. This cemetery was one of the cemeteries investigated during part of an intensive surface survey of three of the cemeteries at Marki in 1999, directed and published by Andrew S. Sneddon. In the middle tier at Davari, where the chamber tombs are located, several large stones identified as stomion blocks were recorded (Figure 53). Although the details of individual stones were not reported, we are told

that most were of limestone (Figure 54), but that "many are made of calcarenite (imported from over 10 km away)." The approximate dimensions of these stones are 110 x 70 x 20 cm[283], which is in most instances larger than those seen at Kappara. Large fragments of laminated gypsum, which most likely came from a source at Kotsiatis, approximately 3 km away, are also noted.[284]

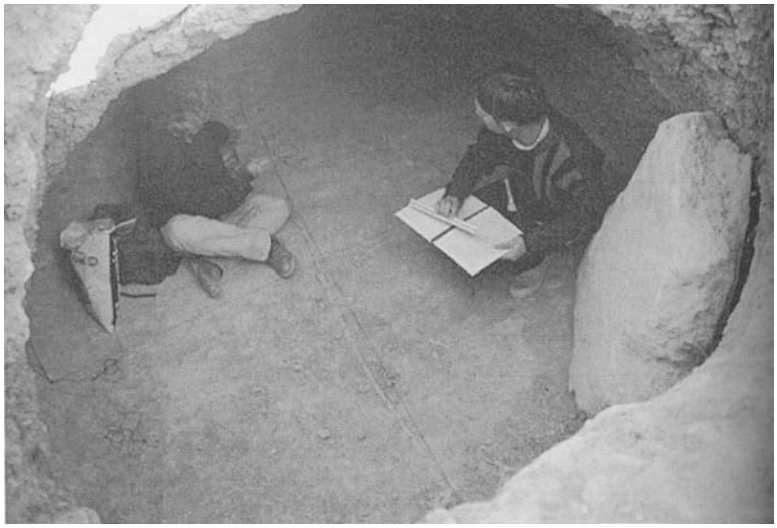


Figure 54 - Chamber Tomb 5 from Davari's middle tier. The large stomion block is made of the local limestone. (Sneddon 2002, pl. 14)

An actual count of these blocks is not provided, and a map of the cemetery only marks the locations of 17 imported stone blocks, so presumably there were many more made of the locally available limestone the locations of which were not reported.[285] The surface survey also indicated that the middle tier may have had as few as 50 chamber tombs, the other tomb depressions being earlier pit tombs, so without more information it is impossible to even guess at whether all of these stones were

[283] Sneddon 2002: 11
[284] Frankel and Webb, 1996: 12
[285] Sneddon 2002: Fig. 1. 26

associated with chamber tombs and served as stomion blocks, or if some may have actually been related to the pit tombs.

Figure 55 - Looted pit tomb from a PreBA cemetery in the vicinity of Tokhni-Latomares. The broken sherds of what looks to have been a calcarenite capping stone, similar to those described at Marki-Davari, are clearly visible.

The lower tier of the cemetery at Davari is thought to consist only of pit tombs, some of which the investigators reported as having been "furnished with long, flat capping stones, some of calcarenite and others of limestone." In some instances the stones were actually found on top of the looted pit tombs, which Sneddon suggests could have been their original positions. These "capping stones" have reported average dimensions of 155 x 65 x 10 cm. This means that the average stone on the lower tier is 50% longer and 50% thinner than the stones on the middle tier, but of the same mass and material. This suggests some relationship between the capping stones of the pit tombs and the stomion blocks that cap the entrances to the chamber tombs. Most interestingly, the report also states that a few of the tombs on the lower tier have limestone blocks (approx. 40 x 30 x 8 cm), wedged upright, apparently in situ, at the

edge of the pit,[286] creating an effect similar to a modern North American or European tombstone.

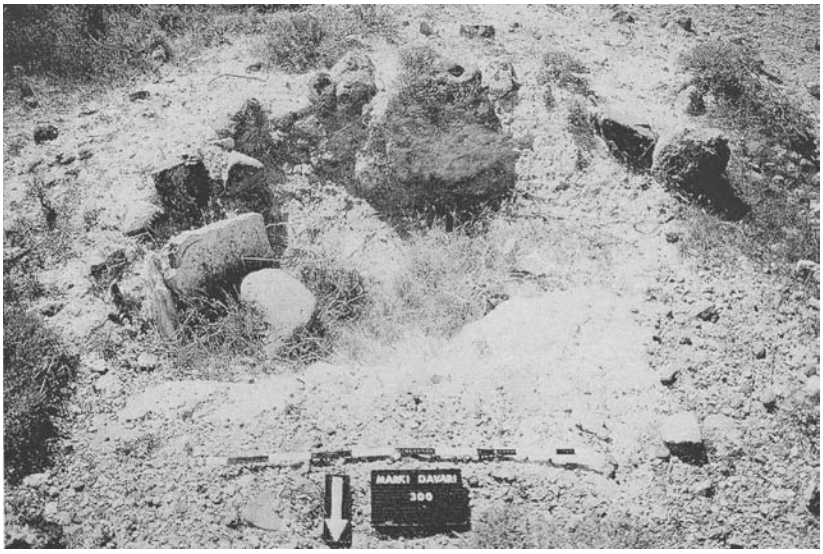


Figure 56 - Pit Tomb 300 at Davari, with stones wedged upright at eastern edge (scale 1 m). (Sneddon 2002, pl. 9)

At the cemetery at Marki-Vounaros, there were also some large squared stones reported lying near the tombs. Again the dimensions of these stones are not recorded, and Sneddon suggests that they are stomion blocks, which he takes as evidence for some of the tombs at Vounaros being chamber tombs, although he otherwise believes the tombs to be pit tombs.[287] No objects besides pottery sherds were recorded on the surface at any of the other cemeteries near Marki by the survey. The author's visits in 2008 and 2009, however, located multiple large blocks of shaped stone in the Vounaros-Pappara cemetery, which were clearly visible and would have made excellent tomb markers (Figure 57). These blocks were not as large as the plakas,

[286] Sneddon 2002: 11, Fig. 1.12, 1.13, Plate 9
[287] Sneddon 2002: 12

which were also visible, sometimes in situ, suggesting the presence of unlooted tombs. In addition, several Type 2 rubbers were also recorded by the author at this cemetery.

Figure 57 - Thin rectangular worked stone, located in the vicinity of the northern cluster of the Vounaros-Pappara cemetery by the author. The pink ruler is 15 cm long.

Alambra

The cemeteries at Alambra were not systematically surveyed as distinct units, but finds from surface surveys of Mouttes in 1974, 1980, and 1984 were recorded, and the excavators also provide us with a few useful general observations. The chamber tombs at Alambra (Clusters I-IV) are described as having "many large slabs scattered amongst" them, which they imagine were the stones used to seal them.[288] These would then be imagined to be similar to the stomion blocks found in the cemeteries at Marki. However, as with Marki, it is important to remember that looters rarely enter tombs

[288] Coleman, et al. 1996: 114

through the dromoi, but tunnel in through the roof, so it is possible that these stones were instead serving as surface markers.

Figure 58 - Large block of imported white stone in vicinity of Cluster III, possibly marking the location of a tomb entrance.

Of the open-pit tombs found in Cluster V, they say that, "There may have been a covering of stones immediately above the burial, and maybe even a mound of stones above that," though no particular evidence is provided, so it is unknown whether this is purely conjecture or based on observations made in the field. They suggest that closed pit tombs like those in Clusters V and VI were filled and then capped with a stone slab. For this pattern they have a recorded example, in which a tomb was filled with rubble and the opening was closed with a stone slab. They also note that "numerous limestone slabs are scattered throughout the pillow lavas in the vicinity of

plundered pit tombs."[289] Since open and closed pit tombs occur in close proximity, without other evidence, the slabs cannot be firmly associated with one type or the other, but the pattern of pit tombs covered with stone slabs matches that recorded at Marki.

While the sampling techniques used in the surveys of Mouttes were useful for the purpose for which they were intended (determining the extent of Bronze Age activity surrounding Mouttes and locating any previously unnoticed major features[290]) the areas around the cemeteries were not targeted, coverage was limited, and the surveys were not aimed at producing statistical results. [291]Also, the publication of the data from these surveys is scant, hindering its usefulness.[292] Additionally, and most importantly for this study, during the 1980 and 1984 surveys ground stone objects were counted and only recorded individually if they were determined to be of particular significance or interest (e.g. axes or gaming stones).[293] Despite all these caveats, the surveys do not prove completely without value for trying to ascertain whether the PreBA inhabitants were using some sort of marking program in the cemeteries at Alambra.

The 1974 cadastral plot surface survey included the locations of the Cluster I and Cluster II cemeteries. This survey did record individual pieces of ground stone, but as they could have been located anywhere within the cadastral plot, direct association with the cemeteries is not certain. In the four plots containing Cluster II (44,45,46, and 47) eight ground stone objects were found, but all appear to have been

---

[289] Coleman, et al. 1996 115
[290] Coleman et al. 1996: 347-348
[291] Ibid..: 11-16
[292] The results of the 1980 survey are unpublished, and exist only as an MA thesis (Kalina, A.F. 1982. Spatial Organization of a Bronze Age Cypriot Site, unpublished Master's Thesis, University of Texas at Arlington), and the 1984 survey as Appendix 1 of the final publication of the excavations at Alambra-Mouttes (Coleman, et al., 1996)
[293] Coleman, et al. :349, 353-54

small hand tools. The plots surrounding Cluster I (36, 38, and 39) had five recorded ground stone items, three of which were small hand tools. The other two are identified as querns/rubbers, of the same type recorded at Kappara. However, both were fragmentary.[294] The 1980 or 1984 surveys did not record the types of ground stone objects of interest to this study, but in the brief report of the results of the 1980 survey it was stated that "Querns and other stone implements not normally associated with burials were found around tombs,"[295] and again in the summary of the 1984 survey results we are told, "Querns and other artifacts more likely to be associated with habitation than tombs were found in the vicinity of *Plision tou Khoriou*,"[296] the location of the Cluster I cemetery.

Figure 59 - Possible chamber tomb entrance in vicinity of Cluster IV. Notice the large grey imported stone.

[294] Coleman, et al, 1996: (finds)110-111; (grounds stone catalogue)143-176
[295] Coleman et al, 14.
[296] Ibid., 15.

The investigators took this evidence to indicate that cemetery and settlement were closely associated or intermingled at Alambra.[297] Also, the large stone querns clearly stood out in the landscape, so much so that the investigators felt it necessary to record their presence. These querns may have been associated with individual tombs, as at Marki, but as findspots were not recorded and the surveyors collected and moved some objects, it is sadly unlikely that this can ever be determined. Another feature not recorded by the surveyors is the presence of several large piles of stone, some of which are not in locations that a farmer might be expected to have piled them (Figure 60). As will be discussed below, such features may have been used to block tomb entrances.

Figure 60 - Suspicious pile of stones in the vicinity of Cluster II at Alambra.

Sotira

There was no formal survey of the cemetery at Sotira-Kaminoudhia, but some observations recorded in the publication of the tomb excavations are of use. Dikaios

[297] Ibid. 1996, 352

excavated a chamber tomb in the so-called Cemetery A in 1947, and Swiny and Herscher describe his notes and the single photograph taken of the tomb. In the photograph from Dikaios' excavations, in addition to a large slab of stone that Swiny and Herscher believed to be the plaka, or stomion block of the tomb, there was another large stone block, with a small, rough stonewall in front of it. They state that this arrangement was a common way of securing plakas, so these might indicate the presence of another chamber.[298] That the wall and plaka are exposed in this way would require that either they had been excavated and carefully cleaned by Dikaios, who makes no mention of a second chamber, or that the dromos of this second tomb had completely eroded, but left the plaka and wall still in place.

A third possibility is that the plaka and wall were always visible on the surface, in which instance they would have served as a clear marker of the tomb's location. This possibility is strongly supported by evidence found during the 1981 and 1983 excavations at Kaminoudhia, which excavated and recorded 21 possible tombs, yet located only one clear dromos.[299] The tombs at Kaminoudhia are often difficult to classify as pit or chamber tombs, which the excavators largely attribute to erosion, but a surprising number of plaka-like stones were found associated with individual tombs, including those that did not fit the standard definition of a chamber tomb. These plakas, in addition to closing the entrace to the tomb, could have been used to designate burial locations. The wall or pile of stones, located in front or on top of the plakas would also have served as marking devices, and are reminiscent of the arrangements described of the pit tombs located at Alambra, in Cluster V.

Tombs 4, 12, and 17 in Sotira-Kminoudhia's Cemetery B appear to have been closed-pit tombs, which take the form of flask or bottle shaped chambers, entered

---

.[298] Swiny et al., 2003: 105
[299] Ibid. 107.

through a hole in the roof. Tomb 4 had several fragments of large tabular slabs limestone, which could be pieces of a plaka or plakas, inside the tomb.[300] Just to the west of Tomb 12 a large plaka was found lying on the surface.[301] Tomb 17 also had no evidence of a dromos, but immediately to the south of the tomb's entrance another large limestone slab resembling a plaka was found, along with a concentration of cobbles.[302]

Tombs 15 and 16 were so damaged that their form is impossible to conclude. Tomb 15 could have been a chamber tomb or a closed-pit tomb, as the remains of the caved in roof were found above the burials, but the excavators note that there was a concentration of cobbles (which would not be present naturally on the limestone slope), on the surface directly above the tomb.[303] Tomb 16 also had a plaka, but so little of the tomb's structure remained that the plaka's relationship with it could not be determined.[304]

A particularly interesting example is Tomb 10, which also had a large limestone slab, identified as a plaka (Figure 61). Though the tomb was heavily damaged by erosion, the plaka appeared to be in situ, located right at the edge of the tomb cut into the bedrock and still propped up at a 45 degree angle. It most likely stood completely upright at one time but the accumulation of soil in front of it prevented it from falling to a horizontal position. What is most interest is the plaka's location right at the level of the floor of the tomb, which if this were its original position, would indicate a horizontal entrance cut into the hillside and blocked by a plaka, not the expected top-down entrance found in chamber tombs with dromoi or

---

[300] Ibid. 108.
[301] Ibid. 123.
[302] Swiny et al. 2003, 133
[303] Ibid.: 129
[304] Ibid. 132-133

closed pit tombs. It seems most likely that this tomb was entered horizontally, and the plaka and a low wall of cobbles holding the plaka in place would have been left exposed, which would result in an arrangement just like those observed in Dikaios' photograph, and described at Alambra.

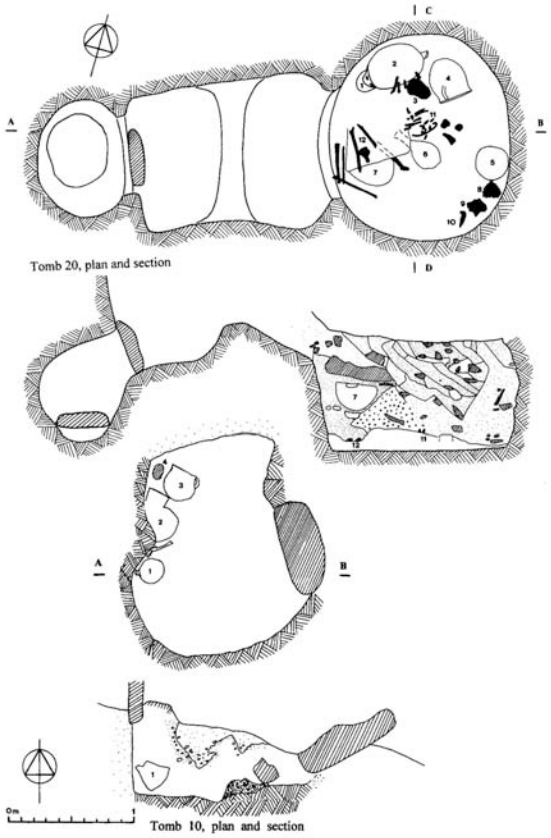


Figure 61 – Plans of Tomb 10 and Tomb 20 from Sotira Kaminoudhia, found with plakas in situ. (from Swiny 2003, fig. 3.3)

Vasilikos Valley

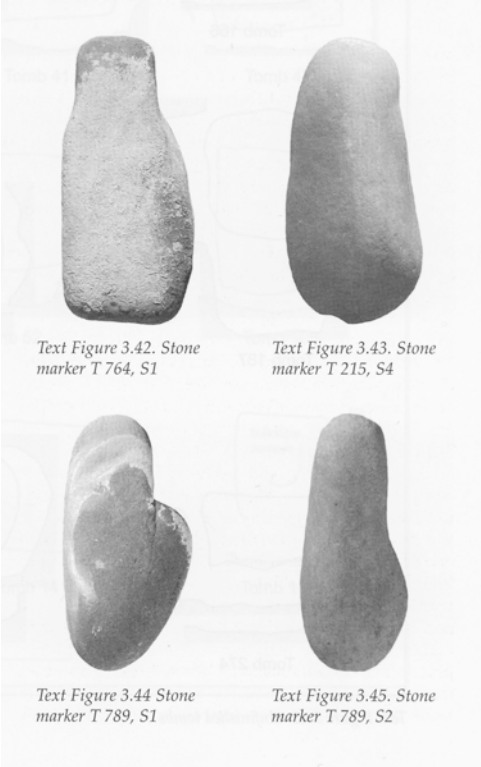
The cemeteries at Kalavasos Village and Kalavasos-Mitsingites in the Vasilikos Valley sadly do not provide much additional evidence for, or against, the marking of tombs. All known tombs in both cemeteries are chamber tombs that follow the classic form presented by Einar Gjerstad in his tomb typologies of the Early and Middle Cypriot, and as such, they had dromoi with a stomion opening leading into the

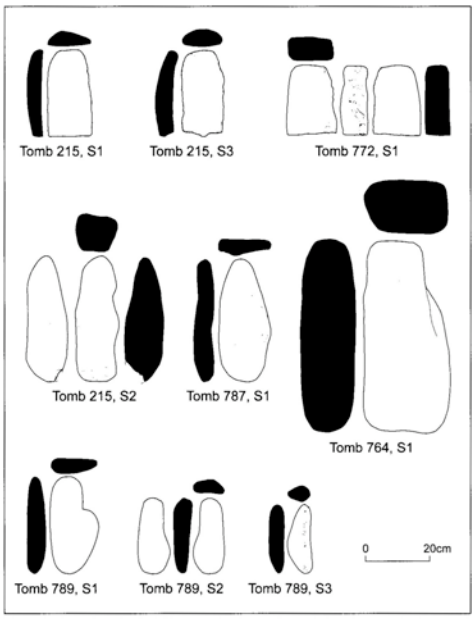
chambers. Several plakas were found in situ in the excavations of the Village cemetery and displaced plakas are visible in the dromoi of several of the looted tombs at Mitsingites. However, as the cemetery in the Village vicinity is completely obscured by the modern village of Kalavasos, it is impossible to know or even guess at what once would have been visible on the surface.

Deneia

Evidence from the cemeteries at Deneia is included here because the thorough surface survey performed prior to the excavation of a selection of the tombs by the team from Latrobe University recorded several possible instances of tomb marking. In addition to well-cut dromoi (sometimes almost perfectly square) and plakas, they recorded the presence of several remarkable diabase cobbles, some of which had been worked (Figure 62). These cobbles were of sufficient size and distinct form so they stood out in the landscape, and the investigators discuss the possibility that they may have been used as tomb markers. They also suggest that part of the significance of these stones is their shape, which is slightly anthropomorphic.[305] Unfortunately, though several stones were photographed or drawn in the pubication of the Latrobe University project at Deneia, the actual number of these stones found or their prevalence was not recorded.

[305] Frankel and Webb 2007, 28-29





Text Figure 3.46. Examples of stone markers

Figure 62 – Possible tomb markers recorded in the publication of the survey and excavations at Deneia. (Frankel and Webb 2007, 28-29)

Discussion

Other evidence for tomb marking can surely be collected by sifting through the excavation reports of other cemeteries and individual tombs on Cyprus, but using just the evidence from the case study cemeteries in this thesis, a pattern already begins to emerge, and some hypotheses can be made. These can later be tested against the data from other reports and close observations made in future field studies.

First, the pattern of chamber tombs having their stomions closed with stomion blocks, or plakas, appears to be consistent across the island and throughout the PreBA. The closed-pit tombs, which appears to be very much like a chamber tomb, but entered through a narrow opening or shaft in the roof of the tomb, but without a dromos. Just like a stomion, this entrance appears to have been blocked with a plaka.

Evidence from Kaminoudhia suggests that other tomb forms that do not easily fit the chamber or closed pit typology, for example entered horizontally like a cave, would also have their entrances blocked by a plaka. In the case of the so-called closed pit tombs or cave-like tombs, the entrance to the chamber of the tomb would be right at the ground surface, so a plaka or other stone construction covering the entrance would have been visible. A plaka closing the stomion of a chamber tomb would likewise be visible if the dromos was left unfilled. Simple pit tombs, like those at Marki-Davari, and Alambra-Mouttes Cluster V, are recorded as having large slabs of stone either lying atop them as capping stones, or propped up at the edges of the pit.

These plakas, stomion blocks, and capping stones are all large blocks of calcareous stone, often limestone, but also calcarenite or gypsum. The material appears to have been significant, possibly of symbolic value, so that material was sometimes obtained from sources several kilometers away from the cemetery. The importance the plaka appears to have been such that tombs that did not have entrances to be blocked, such as pit tombs or scoop graves, still have plaka-like stones associated with them. With all these different tomb types, and in all these different configurations, these plaka-type stones both mark the location of the "entrance" to the burial, as well as blocking entry or exit, though in the case of the horizontal stones associated with pits, perhaps more symbolically than practically.

Another pattern that is noted in a few instances is the construction of a wall or heap of stones on top of or in front of these plakas or capping stones. These constructions could be made of limestone, but in a few cases it was specifically noted that they were cobbles, which are rounded river stones, often diabase or other darkly colored rock, which would have been carried up to the higher ground of the cemetery sites from the river drainages. A low (40 cm) wall or a shallow layer of cobbles would not greatly enhance the physical security of a tomb, but it would certainly serve both

as an additional marker of the location of the tomb entrance as well as an additional symbolic obstacle to entrance or exit.

The pattern of the ground stone tools, such as Type 2 querns/rubbers, which are sometimes found in cemeteries and even associated with individual tombs, is also significant. This is recorded at Marki-Kappara and possibly Clusters I and II at Alambra. Querns in particular are large enough objects to be clearly seen on the surface of the ground, and they are manufactured out of dark colored volcanic stone, which makes them even more visible when located in areas of calcareous soil, which could make them attractive for use as grave markers. Additionally, a quern is an object that requires a significant investment in time and effort to produce, making it a valuable object. As objects of value, and as objects that were used daily, querns may have been associated with particular households or even specific individuals, which would have added to their symbolic value as funerary objects and grave markers.

However, all the recorded querns were found in the vicinity of looted tombs. Ground stone is of little value to collectors of antiquities, and so they may have originally been funerary offerings, which were simply cast aside by looters, as is suggested by the presence of some possibly related objects within tombs at Lapithos and Vounous. As ground stone was not an object of interest for some researchers, particularly earlier in the century, it is possible that these types of items have occurred elsewhere and were simply not recorded. Without further data the role of groundstone querns or natural “menhirs” within tombs or outside them remains a mystery.

D. Visiting the Dead

The marking of the tombs in the PreBA cemeteries on Cyprus ensured that the tombs could be found and reopened for subsequent interments, a practice that is believed to have been common during this period, with many tombs containing the remains of more than one individual.[306] Priscilla Keswani has also made a strong argument for the development of a program of secondary mortuary treatment during the PreBA, in which the remains of the deceased would be exhumed, cleaned and arranged, and then reburied.[307] The exhumation and reburial, possibly within the same chamber as the initial burial, would have been an occasion for ritual, and an opportunity for the competitive elaboration thereof. However, interments, whether primary or secondary, might not have been the only cause for individual tombs or cemeteries to be visited by the living members of the community.

Many modern cultures visit the graves of their relatives, either on special days like the Dia de los Muertos in Mexico or the Obon festival in Japan, or as private rituals, as some families visit graves on the anniversary of a loved one's death. The same is true of historical cultures, as with the feast of Parentalia in Rome when the graves of ones' parents were visited. These festivals or visits often include the ritual cleaning and decorating of the gravesite, the leaving of offerings, and frequently also include the eating of a ritual meal.

Feasting as an accompaniment to mortuary ritual associated with both initial and secondary interments is attested in many cultures.[308] Feasting that occurred while a tomb was open, such an during these interment rituals, might be expected to have the remains of the feast deposited within the tomb along with the other funerary offerings.

---

[306] Keswani 2004, 41; Webb 1992, 88
[307] Keswani 2004, 41-49
[308] e.g. the Berawan of Indonesia (Metcalf and Huntington 1991) and the Merina of Madagasar (Bloch 1971)

Funerary offerings and evidence for feasting found outside of the tomb would appear more likely to be indicative of visits to the grave site on occasions other than interments.

Because archaeological contexts outside the tombs themselves are mostly unsealed, the remains of organic offerings, such as meat or grain from food, or fabric and flower decorations are unlikely to be found or recognized as such. However, stone or ceramic objects may be identified as possible funerary offerings outside tombs if they are found in discrete deposits, if their location and arrangement suggests intentionality of placement, or if they are of sufficient size or weight so as not to be easily portable, thus suggesting their continued presence near the location of their initial deposition. Keeping these qualifications in mind, three categories of evidence for possible activity and social interaction in cemeteries at times other than interments are presented below: Ground stone tools, Gaming Stones, and Feasting or Ritual Deposits.

Ground Stone Tools

Few intensive surface surveys of cemeteries have ever been done, and as a result there is little systematic recording of stone tools located within the bounds of PreBA cemeteries, and not enough to allow comparative analysis. However, the presence of such implements has been casually noted repeatedly by investigators. This is noteworthy for the current study, because ground stone implements are only rarely recorded as having been found within tombs as part of the funerary offerings. The presence of large quantities of ground stone tools within a cemetery would then suggest that they were there not as the result of tomb looting and discard, but rather of prehistoric activity.

The excavators at Alambra state that, "Querns and other stone implements not normally associated with burials were found around tombs as well as areas of possible habitation,"[309] and they make particular note of ground stone implements of various types at Plision tou Khoriou,[310] in the vicinity of a large cluster of chamber tombs. No surface survey was completed of the cemeteries at Sotira-Kaminoudhia, though a couple of pounders were found and recorded from the trenches in Cemetery A,[311] and Kalavasos Village cemetery cannot be surveyed due to its location beneath the modern village. However, the current author saw and recorded several groundstone implements in the plateau of the cemetery at Mitsingites.[312]

In contrast, it should be noted that the excavators of Marki-Alonia actually remark on the complete lack of groundstone material seen on the surface at Kappara,[313] and none is recorded at any of the other cemeteries. One possible explanation is that the presence of ground stone tools within cemeteries may be a function of the proximity of a settlement to its cemeteries. The presence of stone tools in cemeteries may indicate the processing of food or other industrial activities in these locations, but might not be indicative of any particular ritual or religious significance to the activities. Instead it could indicate a level of comfort with, or rather a lack of any taboo against, mundane activity in a location that on other occasions is associated with mortuary activity.

---

[309] Coleman, et al. 1996, 14.
[310] Swiny et al. 2003, 352.
[311] Ibid. 2003, 139.
[312] Recorded in fieldnotes from personal observation, summer of 2008.
[313] Frankel and Webb 1996, 13.

Gaming Stones

Gaming stones are one type of object frequently found in Bronze Age cemeteries that may represent non-funerary activities in the vicinity of grave sites. A few of the larger examples have already been discussed in the chapter titled, "Marking the Dead," but there are several other instances of gaming stones have been found in association with tombs and cemeteries on Cyprus.

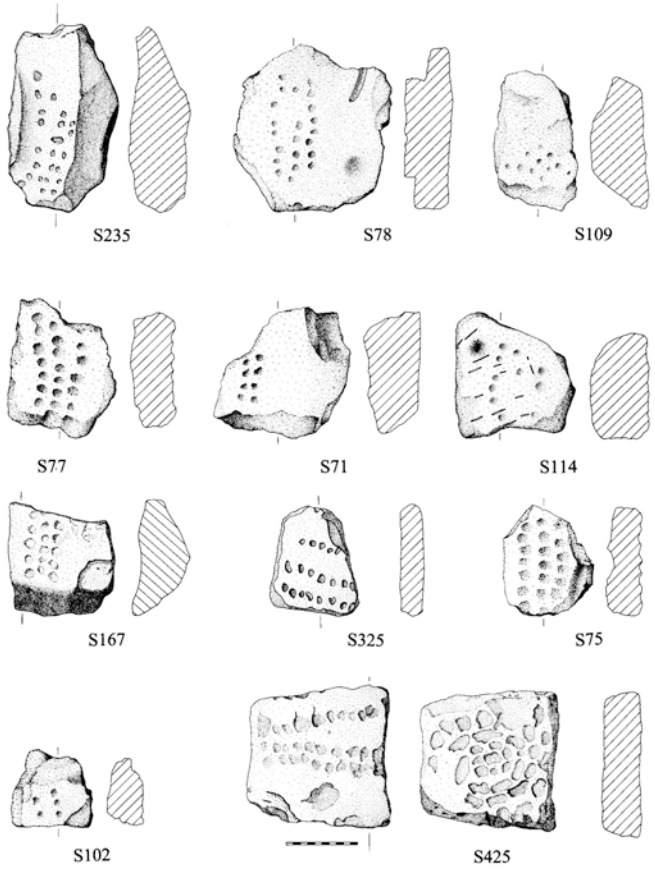


Figure 63 - Gaming stones from the settlement at Sotira-Kaminoudhia, but of the same type found in PreBA cemeteries. All are Senet-type, except s425, which appears to an example of the Mehen-type.

The gaming stones of Bronze Age Cyprus fall into two major categories, defined by their form, and named after the Egyptian games with boards of the same form. Similar boards have been found throughout the eastern Mediterranean, and it is suspected that they are related to the Egyptian games.[314] All gaming stones consist of divots pecked into stone in a regular pattern that are believed to be used to hold gaming pieces, probably small stones or ceramic pieces (Figure 63). The Senet-type stone consists of 3 parallel rows, usually of ten divots each, and sometimes with an additional larger divot at the end, presumably to hold extra game pieces. The Mehen-type stone has divots pecked in a spiral that can be of varying size, which sometimes has a larger divot at the beginning and end of the spiral, possibly representing the head and tail of a snake.[315]

The appearance of Senet-type gaming stones in cemeteries in Cyprus is not only significant vis-a-vis evidence for long distance trade contacts at this early period, but there is also possible religious or ritual significance. It is known that at least by the end of the 18th Dynasty (ca. 1293 BC, corresponding to the Late Bronze Age on Cyprus) in Egypt, the game of Senet was a simulation of the netherworld, with the different positions on the board representing gods and events in the afterlife.[316] Lacking textual evidence the religious signifance of Senet in earlier periods is not certain, but Senet-like boards are attested in Egyptian burials as early as the Predynastic period (3500-3100 BC),[317] making it likely that the religious and funerary significance also extends earlier.

---

[314] See Stuart Swiny, 1980 for a thorough discussion of evidence for the relationship between Cypriot gaming stones, other gaming stones in the Eastern Mediterranean, and the board games of Egypt. However, at the time of Swiny's article, little scholarship was available on the subject of the religious connotations of the Mehen game, which has subsequently been remedied by Peter Piccione (1990).
[315] Swiny, 1980: 54.
[316] Piccione, 1980: 2.
[317] Ibid.: 3

The game of Mehen in Egypt likewise had religious and funerary connotations. The god Mehen appears in New Kingdom literature pertaining to the netherworld, where he is portrayed as a giant coiled serpent that protects and guides the sun god Ra on his bark during his nightly voyage through the netherworld.[318] In these texts there are also descriptions of the "Circuit of Ra" and the "Roads of Mehen," which scholars recognize as having the same form as the Old Kingdom (2613 BC – 2494 BC) board game called Mehen, with a board that took the form of a coiled snake.[319] The "Roads of Mehen" are described in the Coffin Texts, funerary texts that appear during the First Intermediate Period (2181-2055 BC), as the circular path that Ra, and likewise the deceased, took as part of the cycle of resurrection.[320]

The Mehen game and the board itself are also named multiple times in the Pyramid Texts of the Old Kingdom. In PT Utt. 321 it is described as the starting point for the deceased kings' ascension into heaven, and a passage in PT Utt 659 tells the king to "Take for yourself these white ivory pieces from the Mehen board. Go around them as an arrow in this their game of arrow."[321] In PT Utt. 758, inscribed in the pyramid of Queen Neith, Neith rests within the coils of a serpent god, just as Neith, "sits in your Mehen board." The meaning of PT Utt. 626, another text from the same pyramid, is not fully understood, but relates Neith's identification as the falcon-god *Wr* to her appearance on a Mehen board associated with Shesmu, the demon god of blood, oil and the wine press.[322]

While gaming stones of both the Senet and Mehen types are known from settlement contexts on Cyprus, several have also been found within PreBA cemeteries,

---

[318] Piccione 1990, 43
[319] Ibid., 46
[320] Ibid., 47
[321] Ibid., 48
[322] Piccione 1990, 49

suggesting that the games may also have had a ritual or funerary significance in Cyprus. Directly associating the gameboards with the games known from Egypt is difficult, as there is little evidence for contact between Egypt and Cyprus at this early date, and it is possible that the games reached Cyprus indirectly, through contacts in the Levant.[323]

A Senet-type stone was recorded as having been found on the surface in the middle of Cemetery B at Vounous,[324] and a fragment of a gaming board was found in Area Z/Cluster V, during the excavations at Alambra-Mouttes, adjacent to tomb Al. 102.[325] A Senet-type stone was found by Sturt Swiny at Marki-Pappara[326], though the excavators of Alonia suggest that it may not have originated in the cemetery, and instead could be associated with the settlement at Alonia, which may have extended a great deal closer to the Pappara ridge than uncovered during the excavations.[327] Another Senet-type igneous gaming stone was also found at Marki-Kappara near some Type 2 saddle querns.[328] Frankel and Webb suspect that this one came from within a tomb,[329] but it should be noted that there is no record of such a gaming stone having ever been found inside a PreBA Cypriot tomb.

The most striking examples of gaming stones being found in a Bronze Age cemetery are the gaming stones found carved into the bedrock on the plateau at Deneia- Kafkalla.[330] Both Senet and Mehen type boards were found, and as they are found carved directly into the stone there is no chance of their having been displaced

---

[323] Swiny 1980, 70.
[324] Swiny 1986, 35.
[325] Coleman et al. 1996, 119.
[326] Swiny 1986 (Episkopi), 35-36.
[327] Frankel and Webb 1996, 86.
[328] Swiny 1986, 36.
[329] Frankel and Webb 1996, 86.
[330] Herscher 1998, 320.

from some other location, strengthening the argument that the other gaming stones found in cemetery contexts are not the result of displacement.

Feasting or Ritual Deposits

Research into the PreBA cemeteries of Cyprus has uncovered several types of deposits that may represent the remains of feasting, be it "ritual" or merely commemorative, or offerings left for the deceased at times other than interments. These deposits can be roughly divided into three categories: dromos deposits, exposed deposits, and cist or pit deposits. Only evidence from the PreBA cemeteries used as case studies for this thesis is presented.

Dromos Deposits

The architectural form of the Cypriot Bronze Age chamber tomb provides what would have been a convenient location for the placement of mortuary offerings without the opening of the tomb itself. If the dromos of a chamber tomb would be left open between interments and possibly after the final interment as well, as has been discussed earlier in this thesis, the open dromos could be used to place offerings or feasting remains in direct association with a burial, without disturbing the remains of the deceased. When the dromos was filled, either intentionally or by the natural erosion of soil from the surface, the offerings would be buried at the base of the dromos.

A deposit matching this description was found in association with the only chamber tomb excavated and recorded by the Cornell University expedition to Alambra, Tomb Al. 101. The dromos measured 1.8 x 1.9m, and two intact pots were found at the bottom, apparently in situ. These two vessels, a courseware cooking amphora (F568) and a RP Basin (F569), were both blackened, suggesting their use in

food preparation,[331] and supporting the theory that they represent the remains of some kind of feasting activity at the burial site, though they may also be food offerings left for the deceased.

Several dromoi in the cemetery at Kalavasos Village also have had evidence for feasting or offerings. The dromos of Tomb 5 had a small niche closed with its own plaka, but there was nothing found preserved within it. However, a RP spouted bowl and a RP loop-handled cup were both found in situ on the dromos floor.[332] Tomb 6, another ECIII tomb, also had a large RP bowl found in its dromos.[333] Three large dromoi with multiple chambers were also found to have evidence for feasting or deposits of offerings.

The shared dromos of Tombs 57, 58, and 63 had ten vessels of various shapes found within it: 5 large jugs, 1 large bowl, 2 large amphorae, 1 small jug, and 1 juglet were found inside the dromos, which measured a substantial 3.26x2.18m, large enough for multiple grown adults to stand in simultaneously. The dromoi of Tombs 59,61 and 62 and of Tombs 70, 71, and 71 were both heavily damaged by the construction excavation that led to their discovery, but despite the damage to the contents, sufficiently large quantities of sherds were found within the dromoi to lead the archaeologists who performed the rescue excavations to believe that several complete vessels had originally been present before the disturbance. These dromoi were not as large as that shared by Tombs 57, 58, and 63, but at 2.3x1.5m and 2 x 1.3m respectively, they were still large enough for an adult to comfortably stand and move around.[334]

---

[331] Coleman, et al. 1996, 116.
[332] Karageorghis 1958, 121-122.
[333] Ibid., 126-127.
[334] Todd 2007: 9-10

This archaeological evidence supports the proposed use of dromoi for feasting and offering deposits, with several chamber tombs having artifacts consistent with feasting or mortuary offerings found within the dromos rather than within the tomb chambers. Though the only examples presented here are from the Kalavasos Village cemetery in the Vasilikos Valley and from Alambra, the absence of data from the other case study sites should not be taken as evidence for the absence of this behavior at other sites. At Sotira-Kaminoudhia dromoi were often destroyed by erosion, and at Marki and Deneia few dromoi were excavated. Chamber tombs were often entered by excavators and looters alike through the roof of the chamber, leaving the dromos completely undisturbed or only minimally recorded. Future investigations into the use of dromoi as repositories for the remains of feasting and offerings require a greater sample of tombs with their dromoi fully excavated.

Surface Deposits

Other evidence for visits or activity in within the cemeteries may be found in the area outside the tombs themselves. As with the evidence for activity within the dromoi of the chamber tombs, the collection of this evidence is largely dependent on the excavation techniques used by the investigators of the cemetery. Directed excavations of tombs whose locations are already known are unlikely to uncover any artifacts from the area outside the tombs, and often such evidence is discarded as having originated from within some other tomb that was destroyed by erosion or to was looted with some finds being discarded as not having been of sufficient monetary value. It would be difficult if not impossible for an archaeologist to distinguish between damaged goods that originated within a tomb and were subsequently discarded from items left on the surface that have been damaged by their exposure to the elements and passersby. However, at Sotira-Kaminoudhia, where large trenches

were opened in order to discover the location of new tombs, in multiple instances intact objects were found.

Five trenches were opened in the vicinity of T1, T2, and T3, in the area referred to as Cemetery B at Sotira-Kaminoudhia. Though these trenches uncovered no evidence for additional funerary architecture, 5 intact vessels were found 5 to 10 meters downslope from the three large chamber tombs. These vessels, 2 RP juglets (P2 and P3) and 3 RP mottled bowls (P1, P5, and P6), were all embedded in a secondary limestone matrix, which the excavators believed not to be of recent date. Additional credence is lent to the intentional deposit of these vessels as 2 bowls (P5 and P6) were found nested together and in the same deposit as the 2 juglets. Though firm dating was not possible, the excavators state that there is no evidence against the vessels having been deposited while the cemetery was still in use, in which case they feel they were simply left on the exposed hillside below the tombs.[335] These juglets and bowls are the types of vessels that might be expected to be used for serving a meal.

Similarly in Cemetery A several intact vessels were found in the vicinity of the tombs, located by the excavators opening several large trenches. These finds include several Philia phase objects located towards the base of the slope, including an RP ear-lug pot (P7), a RP flask (P101), a copper spiral earring (M2), and 2 groundstone pounders (S91 and S85), all embedded in secondary limestone approximately 80 cm below the surface and just above the bedrock.[336] The presence of a small piece of bone, presumed to be human, led the excavators to suggest these items came from a disturbed tomb higher up the slope, but their survival as intact objects, the presence of pounders (not normally found as Philia phase burial goods) and the unknown nature of the bone fragment call this attribution into question. These objects could very well

[335] Swiny et al. 2003: 140-141
[336] Ibid.: 137-139

represent the same type of intentional deposit located on the lower slope of Cemetery B.

None of the other cemeteries used as case studies for this thesis were excavated using open tranches. This means that the lack of any record for similar finds in these other cemeteries does not necessarily reflect the lack of presence of such deposits. The tombs at Kalavasos Village, for example, were found exclusively through excavation for construction projects, and by the time the archaeologists were called in to do rescue work the roofs of the tombs were almost always completely removed, indicating that a large amount of soil and rock had already been removed by the construction vehicles. Any deposits in the surrounding area located within this soil matrix would have been effectively destroyed.[337]

Cist Deposits

The deposits of feasting remains or offerings in the dromoi of chamber tombs in Kalavasos Village and Alambra, and those seemingly deposited on the ground surface at Sotira-Kaminoudhia, are not the only evidence for possible post-interment deposition of feasting materials or offerings within cemeteries. An investigation into tomb architecture and contents reveals an intriguing pattern that may indicate a previously unrecognized type of ritual deposit on Cyprus. It is here proposed that a specific class of "tomb" may in fact not be a type of tomb at all, but instead a type of formal ritual or commemorative deposit. Small pits, most less than a meter in diameter and all less than a meter in depth, are found at the cemeteries at Deneia and Sotira-Kaminoudhia that contain intact ceramic vessels, some of the type that would also be used for feasting, and others seemingly miniaturized. Again, as with the other

---

[337] Personal Communication with Ian Todd, Jun 17th, 2009.

proposed post-interment deposits, these pit deposits are not known from all the case study cemeteries, but instead were only identified at Sotira-Kaminoudhia and Deneia. As previously discussed, this could very possibly be the result of excavation methods creating an artificial bias in the data.

These small pit deposits, or "cists" were initially recognized as different from other pit tombs due to their markedly smaller floor Area. However, what makes these pits particularly noteworthy is the lack of any evidence for the presence of human remains. Most of these pits were previously identified by their excavators as "infant burials," presumably as an attempt to explain their small size, sometimes miniaturized contents, and the complete lack of bone or tooth fragments.

The presumption that infant bones do not preserve as well as those of adults in the extremely alkaline Cypriot soil is contradicted by evidence from the Vasilikos Valley. Jack Moyer, osteologist for the Vasilikos Valley Project, in reference to the tombs in the Kalavasos Village cemetery states that, "it was noted with some surprise that infant bones in general survived better than bones of older individuals...."[338] He then goes on to conclude that infants and adolescents were definitely underrepresented, as a result of the burial program, and not due to poor preservation. Supporting these conclusions is the evidence from Kalavasos-Ayios Dimetrios, the major Late Bronze Age settlement at the mouth of the Vasilikos Valley, where several burials of infants and adolescents were excavated, showing that while Late Bronze Age burial practice had changed, the preservation of infant bones was cofirmed.[339] The excavators of Sotira-Kaminoudhia, though stating their belief for the likelihood of a cist being used for an infant burial also admit that, "This is interpretation is slightly

---

[338] Todd et al. 2007, 263.
[339] Personal Communication with Alison South, Aug. 13th, 2009.

weakened by the absence of the cusps, some of which normally survive decomposition even when they belong to neo-natals."[340]

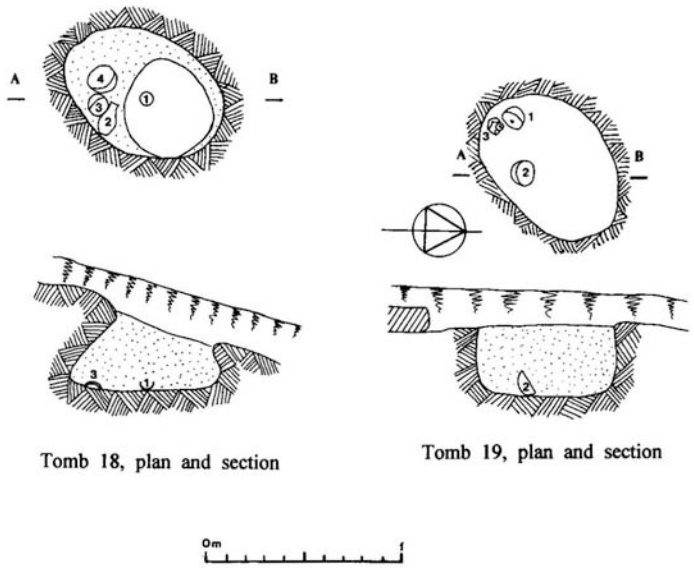


Figure 64 - Two examples of proposed "cyst" deposits from Sotira-Kainoudhia (from Swiny 2003, fig. 35)

Rather than simply noting the apparent size difference between these cists and a PreBA pit tomb, a simple statistical analysis was performed in order to ensure that these cists (pit tombs without human remains) at Sotira-Kaminoudhia and Deneia really represented a distinct sub-population of mortuary architecture. All tombs from the two sites were classified into one of three categories: chamber tombs, pit tombs with human remains, and pit tombs without human remains[341]. As all excavated chamber tombs had evidence for human remains, and these tombs have a markedly

[340] Swiny et al., 2003, 114.
[341] The only exception was Tomb 19 at Sotira-Kaminoudhia which had a tooth from a juvenile. This may exclude this pit from the cist category, but the damaged ceramics and the presence of only one tooth that was recovered via water-sieving, raises the distinct possibility that the tooth is actually intrusive, as was suggested by the excavators (Swing and Herscher: 136).

different architectural form, they were excluded from the analysis, leaving a comparison between pits with human remains and those without. Also, because of a marked difference in size of tombs and pits between sites, intrasite comparison was deemed more appropriate.

The statistial analysis applied was "Student's" t-test, which calculates the probability of the two data sets (pits with human remains, and those without) being the same, with respect to the tested variable (floor area). If the probability is .05 (i.e. 5%) or less, then the null hypothesis, that the two types of pits are the same with respect to area, can be rejected. This result, that the "cists" and pit tombs are significantly different in respect to size, would then support the hypothesis that the cists are a different type of structure, which will be discussed further below. The areas of the chamber tombs are provided for comparison, but calculations were only performed comparing the "cists" (pits without human remains), and pit tombs. Though the decision to investigate this relationship was made because of the initial observation of the different sizes of the tombs, the separation of tombs into the cist and pit categories was done exclusively on the basis of whether human remains were located during excavation.

First this test was performed on the data from the excavated and recorded tombs at Sotira-Kaminoudhia.

Sotira-Kaminoudhia					
Tomb #	Category	Area	Area (Mean)	StdDev (Area)	Standard Error (Mean)
5	Cist	0.64			
7	Cist	0.5			
8	Cist	0.2			
9	Cist	0.6			
20	Cist	0.43			
13	Cist	0.08			
18	Cist	0.3			
19	Cist	0.28			
21	Cist	0.15	0.353	0.199	0.025
4	Pit	2.2			
6	Pit	1.67			
10	Pit	1.7			
12	Pit	2.51			
15	Pit	1.03			
16	Pit	0.71			
17	Pit	1.02	1.549	0.663	0.111
1	Chamber	2.09			
2	Chamber	2.61			
3	Chamber	1.67			
11	Chamber	1.52			
14	Chamber	0.94	1.766	0.626	0.157

Figure 65 - Table of tombs and calculated floor areas at Sotira-Kaminoudhia

t = -5.16

sdev= 0.460

degrees of freedom = 14

p = .0001

The probability (the p-value) that the mean floor areas of the populations cists and pit tombs at Sotira-Kaminoudhia are the same is 1 in 10,000, or .01%. Therefore, the null hypothesis is refuted, and it can be stated with confidence that the cists at Sotira-Kaminoudhia are a distinct sub-population of mortuary architecture from the pit tombs, with significantly different values of floor area.

This same test was also performed using the data collected from the excavations of tombs at the cemeteries at Deneia.

Deneia						
Tomb #	Site	Category	Area	Area(Mean)	StdDev(Area)	Standard Error (Mean)
920	Deneia	Cist	0.79			
167	Deneia	Cist	1.7			
168	Deneia	Cist	0.44			
169	Deneia	Cist	1.23			
24.1	Deneia	Cist	0.99			
24.2	Deneia	Cist	0.99			
25	Deneia	Cist	0.27			
26	Deneia	Cist	2.12	1.066	0.616	0.103
49	Deneia	Pit	2			
163	Deneia	Pit	2.54			
166	Deneia	Pit	3.46			
20	Deneia	Pit	2.89			
23	Deneia	Pit	4.7	3.118	1.031	0.258
34	Deneia	Chamber	30			
185	Deneia	Chamber	6.5			
215	Deneia	Chamber	32			
225	Deneia	Chamber	29			
781	Deneia	Chamber	23			
782	Deneia	Chamber	14.5			
787	Deneia	Chamber	55			
789	Deneia	Chamber	34			
919	Deneia	Chamber	3.52			
48	Deneia	Chamber	7.46			
50	Deneia	Chamber	5.96			
70	Deneia	Chamber	3.77			
75	Deneia	Chamber	2.47	19.014	16.206	1.350

Figure 66 - Table of tombs and calculated floor areas at Deneia

t= -4.54

sdev= 0.793

degrees of freedom = 11

p = 0.0008

The null hypothesis is again refuted, with a 1 in 1250 (.08%) probability that the cists and the pits from Deneia are the same with respect to area, so again the cists at Deneia may also be confidently said to be a distinct sub-population from the pit tombs.

Unfortunately the sample size available for this analysis was very small, with as few as five known examples in a category. This small a sample size makes it difficult to determine the actual statistical character of the results. A much larger sample, collected using statistically explicit means, might result in a Gaussian distribution of values (i.e. a Normal, or bell curve) which would insure that the

"Student's t-test" was an appropriate analytical method. Because the data sets are not sufficiently large enough to determine whether the data conform to a normal distribution, a Mann-Whitney U-test was also run on the data sets. This test can be used to compare sets of data that do not have normal distributions, but instead of testing the null hypothesis of identical means, it tests the null hypothesis that a random observation from one group will be greater that a random observation from the other group. When the Mann-Whitney test was run for both the Deneia data and the Sotira data, the probability that a randomly chosen cist would be larger than a randomly chosen pit was less than 1%.[342]

The results of both the Student's t-test and the Mann-Whitney U-test support the hypothesis that the pits without human remains (the "cists") are significantly different in size from those with human remains. The explanation for this observation is more difficult to determine. If the cists were intended as infant graves, it might be expected for them to be signifcantly smaller in size than the graves of adults, simply because the body of the deceased would take up less space. However, the absence of any evidence for human remains in these pit tombs, in addition to the lack of any kinds of offerings that might be associated with infant burials other than ceramic vessels (only one pit contained another artifact type: faience beads), makes this explanation unlikely. Thus, accepting that these pits do represent a different class of cemetery architecture, both in respect to contents and size, another explanation becomes likely; the cist "tombs" at Deneia and Sotira are not tombs at all, but are instead evidence for mortuary feasting and offerings.

The contents of the cist tombs are consistent with what would be expected for the serving and sometimes preparation of a meal, rather than for storage, and they lack

other types of offerings. Both the excavators of Deneia Tomb 169 and of Sotira-Kaminoudhia Tomb 18 describe the vessels found in the pits as "miniature," which was used to support the hypothesis of the cists being the tombs for infants. Without any other evidence for infant burial in these structures, these miniature vessels still suggest a ritual and not practical function. Another supportive and unique piece of evidence for the use of cists as repositories for the remains of ritual feasting and offerings is "Tomb" 24 at Deneia. This "tomb" actually consists of two intersecting cist-sized pits each about 1 meter in diameter, and as such is listed as 24.1 and 24.2 in the above calculations. The northern pit is filled with ash (no human bone), and the southern half which has a deeper depression contained 4 small bowls, 1 large jug, 2 spindlewhorls, 1 tripodal jar, 1 spouted juglet, 1 jug, [343] The presence of an ash pit, and the absence of any human remains makes it easy to imagine this deposit as the remains of a meal, then ritually buried.

Discussion

In this chapter the evidence for non- and post-interment activity within the geographical bounds of the case-study cemeteries was presented. Unfortunately, due to differing opportunities and methods of data collection, the evidence is not universal or well documented. However, when taken together as a group, the evidence provided by these artifacts and deposits suggest that possibly far more than just the burial of the dead was occurring in cemeteries during the PreBA. There is archaeological evidence to suggest that mundane daily activities including food processing may have taken place within the bounds of the cemeteries, and other activities that may or may not have had ritual significance, such as gaming or feasting, may have taken place with

[343] Nicolaou and Nicolaou 1988, 118

some regularity as well. Incomplete data prevents more from being concluded, but future investigation of cemeteries that include programs of systematic survey and excavation strategies that acknowledge that cemeteries are more than just repositories for the dead but loci of human activity and social interaction, may be expected to illuminate the situation.

Part IV – Conclusions

Conclusions

The goal of this thesis was to reconsider the recently available data pertaining to Prehistoric Bronze Age cemeteries on Cyprus, from an explicitly landscape-based and phenomenological perspective. Set within the physical landscape, cemeteries were also part of a lived landscape. A cemetery does not exist simply on its own, but only in the context of the community of which it is part. People who created the cemeteries by choosing the burial places of their dead, also viewed the cemeteries during their daily lives, marked the locations of the burials in the landscape, and returned to these locations for a wide range of different activities, both mundane and extraordinary.

The investigation into cemetery location revealed that the cemeteries during this period appear to be both bounded entities and, in most cases, spatially separated from the settlements with which they were associated. The choice to cluster tombs together in close proximity with each other and the patterns of growth seen in cemetery expansion indicate the significance of the cemetery as a place to the bronze age inhabitants. In the Vasilikos Valley it is clear that one cemetery was used preferentially over other possible locations for the burial of the dead in the valley, and continued as such over the duration of the Prehistoric Bronze Age occupation of the valley. When space became scarce, instead of opening up new cemeteries, they chose to continue using the same cemetery, and simply expanded to the north. Likewise, the cemetery at Sotira-Kaminoudhia remained in use from the Philia phase straight through to the end of the occupation of the village, with no other cemeteries utilized. Clearly burial within these cemeteries was important to the community; burial there both marked the deceased as a member of the community, and also would also serve to mark the living who continued to interact with the dead in the cemetery as such.

The cemeteries at Alambra-Mouttes and associated with Marki-Alonia also show clear spatial bounding, indicating that the place of burial was of significance to the inhabitants. However, in these cases the use of multiple cemeteries suggests that there were a number of self-defining corporate groups within the settlements, using these separate cemeteries. With multiple available areas clearly deemed acceptable for burial, choices had to be made by the living concerning where their dead would be disposed. Though current theory suggests that these groups were most likely defined by kinship, it is possible that there were other factors that contributed to the decision about which cemetery the deceased would be placed in. At Mouttes, different cemeteries contain different forms of tomb architecture, which might represent different levels of wealth or other types of status or rank, with other factors, including visibility and proximity to the settlement might also have contributing to the definition of a preferential burial place. As with the communities with single cemeteries, placing the dead within a specific cemetery was a clear statement that the deceased, and their relatives, were members of a group, but in this case not just as members of the larger community of the settlement, but also as a member of some self-defined sub-group.

It has been repeatedly suggested that formal, bounded extramural cemeteries are more likely to occur when critical resources are contested and they are created by lineal descent groups to affirm group membership, and thereby legitimizing corporate rights to control of those resources. The PreBA was a time of economic intensification, both agricultural and metallurgical, so it is proposed that the types of locations chosen for the placement of the cemeteries considered in this study supports this kind of symbolic usage in PreBA Cyprus.

Not all of the cemeteries considered in this study, however, were fully separated from the associated settlement. Kalavasos-Mitsingites has a cemetery directly adjacent to the settlement, while the cemeteries of Alambra-Mouttes are

adjacent to, or in some cases possibly even within, the inhabited areas of the settlement, and within these cemeteries on the surface can clearly be seen the detritus of daily life. During the Late Bronze Age, burials particularly of the elite, are frequently found within the settlements. Both of these settlements are believed to have been inhabited into the later portion of the PreBA 2, so perhaps the cemetery-settlement arrangement we see at these sites represents the transition to the burial practices better known in the ProBA.

The use of visibility and elevation to control or dominate a landscape has also been frequently noted by scholars. Several of the cemeteries in this study were shown to be placed so as to maximize their view, and therefore possibly their symbolic control as well, of the surrounding arable land and of the areas of inhabitation. The large cemetery at Kalavasos Village should be noted again here, as it presents a different picture, but not contradictory picture. Located on the lower slopes of the largest hill in the region, the cemetery is also located in one of the narrowest points of the valley. Thus, instead of viewing the whole valley, the cemetery exerted its influence over the communication route up and down the valley, and the large hill of Angastromeni served as both marker of the cemetery's location and sentinel over the whole valley. Clearly, it was important for the cemeteries to see and be seen on a daily basis by the inhabitants of the community.

Exploration into the marking of individual burial locations and the non-funerary activities that may have taken place within the cemeteries provides additional evidence for the significant role the cemetery played in the life of the community. Evidence has been presented in this thesis that suggests that the locations of burials were clearly marked in the landscape, and that the tombs and cemeteries were returned to repeatedly, not only for the purpose of secondary interments or additional burials, but also for feasting, gaming, and possibly even mundane household activities, such as

grinding grain. The PreBA cemetery, though bounded, was not closed off, and the dead were neither gone nor forgotten. Rather the evidence supports the interpretation that the cemetery featured heavily in the lives of the community's inhabitants.

What exactly the role of the cemetery in the community was, however, is difficult to comprehend. Wendy Ashmore and Pamela Geller, in their discussion of the potential of mortuary studies, note that the deliberateness that characterizes mortuary behavior facilitates archaeological study by preserving intent in spatial order, but they also cautioned against symbolic interpretations, as the spatial order detected in mortuary practice might simply be the manifestation of style and custom. However, they did feel believe deliberation (i.e. the choices made by living agents) encodes social meaning within spatial order, and so it can be concluded that "location emphasizes the critical role of burials in social reproduction, charting continuity of kin and community."[344]

The cemeteries in this study were created by the repeated deliberate acts of individuals. These social actors were knowledgeable, and were operating within and against social structures, with every action negotiating and reproducing those structures. The intentionality evidenced by the bounded forms of the cemeteries, the relationship between cemetery and settlement, and the repeated visits to the cemeteries, all highlight the cemetery's role as a locus within the landscape for social action, negotiation, and change.

PreBA society on Cyprus has been characterized as egalitarian or unranked, a marked contrast to the succeeding Proto or LBA society, which was a society of complex and urban states. These cemeteries, as loci of practice in the landscape, following Knapp and Ashmore, may be seen as the materialization of memory,

---

[344] Ashmore and Geller, 82-84, 91.

identity, social order, and finally transformation. Though sadly the data available does not provide us with much temporal resolution, it is still possible that the practices encoded in the preserved forms of the PreBA cemeteries can provide some insight into the development of the later ProtoBA society.

Complexity is a loaded term in archaeology, and though it is often associated with ideas of hierarchical society, complexity may also reflect concepts of heterarchy. Kent Flannery, in his discussion of complex state societies, suggested that complexity might be measured with two variables. Segregation refers to the degree of differentiation within the system, and centralization refers to the degree to which the separate parts were linked by social control.[345] Following this model, settlements with multiple cemeteries, like Marki-Alonia, are displaying increasing segregation, while a situation like that seen in the Vasilikos Valley, may be demonstrating increased centralization.

Randall McGuire also proposed two variables for measuring complexity: heterogeneity, being the measure of differentiation into social groups, and inequality, being the measure of differential access to material and social resources.[346] Heterogeneity by this definition is comparable to Flannery's "segregation", and while inequality is beyond the scope of this thesis, it may be understood to be present in preferential access to preferred burial sites.

Robert Chapman in his study of complexity also states that, "The main interest that the state is intended to guarantee is that of the private property of the dominant class,"[347] with private property being a direct expression of the appropriation of labor and the means of production, creating inequality, and thus causing the development of

---

[345] Flannery 1972.
[346] McGuire 1992.
[347] Chapman 2003, 97.

a hierarchical class society.[348] Though PreBA Cyprus was a pre-state society, the use of bounded cemeteries often in locations of high visibility may be interpreted as reflecting the assertion of control over the limited resource of arable land by corporate groups.

The earliest community, Sotira-Kaminoudhia, shows low levels of sub-grouping within its one cemetery, which also is placed in a location of relatively low visibility compared to the other case studies. The later settlements at Marki-Alonia and Alambra-Mouttes both had multiple cemeteries, displaying clear segregation of the community into separate corporate groups, asserting their identity by the use of separate bounded cemeteries. These cemeteries also show high levels of inter-visibility between settlement and cemetery as well as expansive views over the surrounding arable land, presumed to be a resource of high value. The repeated use and visitation of these cemeteries also highlights their significance to the community and to the constituent corporate groups. It is unknown whether these corporate groups were kin-based, but regardless this still reflects a heterarchical division with the community. It therefore follows that if concern over the control of resources was developing, and is reflected in the prominence of cemetery location, the mortuary landscape at these sites may map out the very formation of stratified hierarchical society on Cyprus.

The construction and use of cemeteries mapped memory and identity onto the prehistoric landscape. Heterarchical divisions within society, most likely kin-based, were thus marked on the landscape through repeated social practice. The importance of incorporation in these groups to their constituent members can be seen in the patterns of longevity, growth, and use of the cemeteries. Thus, the cemetery at Kalavasos Village may show another route of social transformation. Here, one

---

[348] cf. Lull and Risch 1995, 100.

cemetery served as the primary burial place for not one, but multiple settlements. Unfortunately, the circumstances of the archaeological investigations at Kalavasos make the identification of bounded sub-groups within the cemetery impossible, but the use of one cemetery clearly demonstrates that the inhabitants of the valley conceived of themselves as being part of one larger community.

The central location of the cemetery on a major communication route, the marking of the cemetery by the most prominent hill in the landscape, and the continued use of the cemetery over the duration of the PreBA, emphasizes its role as a locus of activity and community awareness. Here social roles would have performed and negotiated in front of a much larger and diverse population than that of the other case study sites. The construction of this larger social network would have created the opportunity for greater social inequality and wealth as control over access to natural resources within the bounds of the valley became contested due to population growth, settlement expansion, and the intensification of production. The formation of this larger community identity within the Vasilikos Valley, as evidenced by the large central cemetery at Kalavasos, would have been the foundations of the ProtoBA complex urban society in the valley, known from the remains at Kalavasos–Ayios Demetrios.

The analysis of the mortuary landscapes of the case study communities in this thesis provides a glimpse into different developmental trajectories of society in PreBA Cyprus. Clearly the mortuary landscape was a lived landscape for the inhabitants of these communities, in which they placed, viewed, marked, visited, and otherwise interacted with both the dead and the living members of the community. Here they learned, performed, constructed, and negotiated their social identities. By approaching the PreBA cemetery as a locus of social action, not just as a repository for bones and

artifacts, archaeologists may find clues to the major changes that Cypriot society underwent during the Bronze Age.

REFERENCES CITED

Ashmore, W. and A.B. Knapp. 1999. *Archaeologies of Landscape: Contemporary Perspectives.* Massachusetts: Blackwell.

Åström, P. 1960. *A Middle Cypriote Tomb from Galinoporni. Opuscula Atheniensia* 3: 123-33.

----------. 1972. *The Swedish Cyprus Expedition.* Vol. 4, part 1B, *The Middle Cypriote Bronze Age.* Lund: The Swedish Cyprus Expedition.

Åström, P. and K. Nys. 2007. "Trial Excavations North of Area 6 in 1999." In *Hala Sultan Tekke 11: Trail Trenches at Dromolaxia-Vyzakia Adjacent to Areas 6 and 8,* edited by P. Åström, 57-61. *SIMA* 45:11 Sävedalen: Paul Åströms Förlag.

Åström, P. and G.R.H. Wright. 1962. "Two Bronze Age Tombs in Dhenia in Cyprus." *Opuscula Atheniensia* 4: 225-76.

Barrett, J.C. 1996. "The Living, the Dead, and the Ancestors: Neolithic and Early Bronze Age Mortuary Practices." In *Contemporary Archaeology in Theory,* edited by R.W. Preucel and I. Hodder. Oxford: Blackwell.

Binford, L.R. 1972. *An Archaeological Perspective*. New York: Seminar Press.

Bolger, D.R. 2003. *Gender in Ancient Cyprus: Narratives of Social Change on a Mediterranean Island.* Gender and archaeology series, v. 6. Walnut Creek, CA: AltaMira Press.

Bloch, M. 1971. *Placing the Dead.* New York: Seminar Press.

Bourdieu, P. 1977. *Outline of a Theory of Practice.* Cambridge: Cambridge University Press.

Brown, J.A. 2007. "Approaches to the Social Dimensions of Mortuary Practices in the Third Millennium AD: 1966-2006." In *Performing Death: Social Analyses of Funerary Traditions in the Ancient Mediterranean,* edited by N. Laneri, 305-314. Chicago: Oriental Institute.

Cadogan, G., et al. 2001. "Maroni-Vournes: a long White Slip sequence and its chronology." In *The White Slip Ware of Late Bronze Age Cyprus,* edited by V. Karageorghis, 75-88. Vienna: Verlag der Osterreachische Akademie der Wissenschaften.

Carr, J.M. 1960. "The geology and mineral resources of the Peristerona-Lagoudhera

area." *Mem. Geol. Survey Cyprus* **2**.

Catling, H.W. 1962. "Patterns of Settlement in Bronze Age Cyprus. *Opuscula Atheniensia* 4: 129-69.

---------. 1979. "The St. Andrews-Liverpool Museums Kouklia Tomb Excavation." *RDAC*: 270-75.

Cesnola, L.P di, et al. 1878. *Cyprus: its ancient cities, tombs, and temples. A narrative of researches and excavations during ten years' residence in that island*. New York: Harper & Bros.

Chapman, R., and K. Randsborg. 1981. *The Archaeology of death*. New directions in archaeology. Cambridge: Cambridge University Press.

Ching, F. 1979. *Architecture, form, space & order*. New York: Van Nostrand Reinhold.

Christou, D. 1989. The Chalcolithic Cemetery of Souskiou-*Vathyrkakas*. In *Early society in Cyprus*, edited by E. J. Peltenburg, 82-94. Edinburgh: Edinburgh University Press.

Coleman, J.E., et al. 1996. *Alambra : a middle Bronze Age settlement in Cyprus : Archaeological Investigations by Cornell University 1974-1985*. *SIMA* 118. Jonsered: Paul Åströms Förlag.

Cosgrove, D.E. 1998. *Social formation and symbolic landscape.* Madison, WI: University of Wisconsin Press.

Dikaios, P. 1940. "The Excavations at Vounous-Bellapais in Cyprus 1931-32*."* *Archaeologia* 88: 1-174.

----------. 1946. "Early Copper Age Discoveries in Cyprus: 3rd Millenium B.C. Coopermining." *Illustrated London News.* 2 March, 244-245.

During, B. 2006. *Constructing Commununities*. Utigave: Nederlands Institute voor het Nabije Oosten.

Durrell, L. 1957. *Justine.* New York: Dutton.

Evans-Pritchard, E.E. 1948. *The Divine Kingship of the Shilluk of the Nilotic Sudan*. The Frazer lecture, 1948. Cambridge: Cambridge University Press.

Falconer, S. et al. 2005. "Initial Archaeological Investigations at Politiko-*Troullia*, 2004." *RDAC*: 1-17.

Flannery, K.V. 1972. "The Cultural Evolution of Civilizations." *Annual Review of Ecology and Systematics,* (3): 399-426

Fletcher, R. 1995. *The Limits of Settlement Growth*. Cambridge: Cambridge University Press.

Frankel, D. 2005. "Becoming Bronze Age: Acculturation and Enculturation in Third Millennium BC Cyprus." In *Archaeological Perspectives on the Transmission and Transformation of Culture in the Eastern Mediterranean*, ed. J. Clarke. Oxford: Oxbow, 18–24.

Frankel, D. and J.M. Webb. 1996a. *Marki Alonia : an Early and Middle Bronze Age town in Cyprus : Excavations 1990-1994*, SIMA 123:1. Jonsered: Paul Åströms Förlag.

----------. 1995. "Archaeological in the Narki Region." In *Trade, Contact, and of Peoples in the Eastern Mediterranean: Studies in Hounour of J. Basil Hennessy*, edited by S. Bourke and J.P. Descoeurdres, 115-127. Sydey: Meditarch.

----------. 1996b. "Excavations at Marki-*Alonia*, 1995-6" *RDAC*: 51-68.

----------. 1997. "Excavations at Marki-*Alonia*, 1996-7" *RDAC*: 85-109.

----------. 1999. "Excavations at Marki-*Alonia*, 1998-9" *RDAC*: 87-110.

----------. 2000. "Marki Alonia: A Prehistoric Bronze Age Settlement in Cyprus." *Antiquity* 74: 763-5.

----------. 2001. "Excavations at Marki-*Alonia*, 2000" *RDAC*: 15-44.

----------. 2007. *The Bronze Age Cemeteries at Deneia in Cyprus.* Sävedalen: Paul Åströms Förlag.

Frazer, J.G. 1890. *The Golden Bough: a Study in Comparative Religion*. London: Macmillan and Co.

Geertz, C. 1973. *The Interpretation of Cultures: Selected Essays*. New York: Basic Books.

Georgiou, G. 2006. Settlement Distribution in Cyprus in the Early and Middle Bronze Age. Ph.D. dissertation [Greek language], Nicosia: University of Cyprus.

----------. 2008. "The Settlement at Alampra-Mouttes Revisited." *RDAC*: 133-44.

Gjerstad, E. 1926. *Studies on Prehistoric Cyprus*. Uppsala: Uppsala Universitets Arsskrift.

----------. 1934. *The Swedish Cyprus Expedition. Finds and Results of the Excavations in Cyprus 1927–1931*. Vol. 1. Stockholm: Victor Pettersons Bokindustriaktiebolag.

Goldstein, L.G. 1976. *Spatial Structure and Social Organization: Regional Manifestations of Mississippian Society.* Unpublished Ph.D. Dissertation. Chicago: Northwestern University.

Goody, J. 1962. *Death, Property and the Ancestors; a Study of the Mortuary Customs of the LoDagaa of West Africa*. Stanford, Calif: Stanford University Press.

Goring, E. 1988. *A Mischievous Pastime: Digging in Cyprus in the Nineteenth Century.* Edinburgh: National Museums of Scotland.

Hadjisavvas, S. 1994. "Alassa Archaeological Project 1991-1993." *RDAC:* 107-114.

Heidegger, M. 1971. *Poetry, language, thought*. New York: Harper & Row.

Held S.O. 1992. *Pleistocene Fauna and Holocene Humans. A Gazetteer of Paleontological and Early Archaeological Sites on Cyprus.* SIMA 95 Jonsered: Paul Åströms Förlag.

Herscher, E. 1981. "Southern Cyprus: The Disappearing Early Bronze Age and the Evidence from Phaneromeni." In *Studies in Cypriote Archaeology*, edited by J.C. Biers and D. Soren, 79–85. UCLA Institute of Archaeology Monograph 18. Los Angeles: UCLA Institute of Archaeology.

----------. 1998. Archaeology in Cyprus. *American Journal of Archaeology* 102 (2):309-54.

Hertz, R. 1960. *Death & the Right Hand*. Glencoe, Ill: Free Press.

Hodder, I. 1982 *Symbolic and structural archaeology.* University Press: Cambridge.

----------. 1994. "Architecture and Meaning: The example of Neoltihic Houses and Tombs." in *Architecture and Order: Approaches to Social Space*, edited by M.P. Pearson and C. Richards. Routledge: New York.

Humphreys, S.C. and H. King. 1981. *Mortality and immortality: the anthropology and archaeology of death : proceedings of a meeting of the Research Seminar in Archaeology and Related Subjects held at the Institute of Archaeology, London University, in June 1980*. London: Academic Press.

Ingold, T. 1993. "The Temporality of the Landscape." *World Archaeology* 25: 152

----------. 1995. *History, evolution and social change*. *Explorations in anthropology*. Oxford: Berg.

Karageorghis, V. 1958. "Finds from Early Cypriot Cemeteries." *RDAC 1940-1958*: 155-52.

Keswani, P.S. 1989. "Mortuary Ritual and Social Hierarchy in Bronze Age Cyprus. Unpublished Ph. D. Dissertation. Ann Arbor, MI: University of Michigan.

----------. 1993. "Models of Local Exchange in Late Bronze Age Cyprus." *Bulletin of the American Schools of Oriental Research* (292):73-83.

----------. 1996. "Hierarchies, Heterarchies, and Urbanization Processes: the View from Bronze Age Cyprus." *Journal of Mediterranean Archaeology* 9: 211-49.

----------. 2004. *Mortuary ritual and society in Bronze Age Cyprus*. Oakville, CT: Equinox Pub.

Knapp, A.B. "Production, Location, and Integration in Bronze Age Cyprus." *Current Anthropology* 31(2):147–76.

----------.1994. Emergence, Development and Decline on Bronze Age Cyprus. In *Development and decline in the Mediterranean Bronze Age,* edited by C. Mathers and S. Stoddart, 271-304. Sheffield Archaeological Monographs, 8. Sheffield: J.R. Collins Pubs.

----------.1997. *The Archaeology of Late Bronze Age Cypriot Society.* University of Glasgow Department of Archaeology Occasional Paper 4. Glasgow: University of Glasgow.

----------. 2008. *Prehistoric and protohistoric Cyprus : identity, insularity, and connectivity*. Oxford; New York: Oxford University Press.

Knapp, A.B., et al. 1994. The prehistory of Cyprus: Problems and prospects. *Journal of World Prehistory* 8(4):377-453.

Kovacik, J.J. 1999. "Memory and Pueblo Space." In *Making Places in the Prehistoric World: Themes in Settlement Archaeology*, edited by J. Brück and M. Goodman. London: University College London Press.

Lull, V. and R. Risch. 2005. "El Estado Argarico." *Verdolay* 7:97-109.

Maier F.G. and M.L. von Wartbug. 1985. "Reconstructing History from the Earth, c.

2800 B.C.-1600 A.D.: Excavating at Paleopaphos, 1966-1984." In *Archaeology in Cyprus 1960-1985*, edited by V. Karageorghis, 142-172. Nicosia: A.G. Leventis Foundation.

Malinowski, B. 1948. *Magic, Science and Religion, and Other Essays*. Boston: Beacon Press.

Manning, S.W. 1993. "Prestige, Distinction, and Competition: The Anatomy of Socioeconomic Complexity in Fourth to Second Millennium B. C. E." *Bulletin of the American Schools of Oriental Research* (292):35-58.

Manning, S.W. and F.A. DeMita, Jr. 1997. "Cyprus, the Aegean and Maroni *Tsaroukkas*." *In Cyprus and the Aegean in Antiquity,* edited by D. Christou, 103-42. Nicosia: Department of Antiquities.

McGuire, R.H. 1992. *A Marxist archaeology*. San Diego: Academic Press.

Merillees, R.S. 1985. "Twenty-five Years of Cypriot Archaeology: the Stone Age and Early and Middle Bronze Ages." In *Archaeology in Cyprus,* edited by V. Karageorghis, 11-19. Nicosia: A.G. Leventis Foundation.

----------. 1992. "The Government of Cyprus in the Late Bronze Age." In *Acta Cypria 3*, edited by P. Åström, 310-29. *SIMA Pocket-book 120.* Jonsered: Paul Åströms Förlag.

Metcalf, P. and R. Huntington. 1991. *Celebrations of Death : the Anthropology of Mortuary Ritual*. New York: Cambridge University Press.

Mitchell, D. (2000) *Cultural Geography: A Critical Introduction.* Massachusetts: Blackwell.

Nicolaou, I. and K. Nicolaou. 1988. "The Dhenia 'Kafkalla' and 'Mali'" *RDAC:* 71-120.

Norton, W. 1989. *Explorations in the Understanding of Landscape: A Cultural Geography*. New York: Greenwood Press

Ohnefalsch-Richter, M.H. 1893. *Kypros, the Bible and Homer. Oriental civilization, art and religion in ancient times*. London: Asher & Co.

O'Shea, J.M. 1984. *Mortuary Variability: an Archaeological Investigation*. Orlando: Academic Press.

Pader, E.J. 1982. *Symbolism, Social Relations and the Interpretation of Mortuary Remains*. Oxford: British Archaeological Reports.

Pearson, M.P. 1999. *The Archaeology of Death and Burial*. Texas A & M University anthropology series, no. 3. College Station: Texas A&M University Press.

Peltenburg, E.J., et al. 1985. *Excavations at Lemba Lakkous, 1976-1983*. *SIMA*, 70:1. Göteborg: Paul Åströms Förlag.

----------. 1996. "From Isolation to State Formation in Cyprus, c. 3500–1500 B.C." In *The Development of the Cypriot Economy from the Prehistoric Period to the Present Day*, edited by V. Karageorghis and D. Michaelides, 17–44. Nicosia: Lithographica.

----------. 1998. *Excavations at Kissonerga-Mosphilia, 1979-1992*. Jonsered: Paul Åströms Förlag.

Peltenburg, E.J. and V. Karageorghis. "Some Cypriot Vases in Glasgow." *RDAC:* 84=91.

Piccione, P.A. 1990. "Mehen, Mysteries, and Resurrection from the Coiled Serpent." *Journal of the American Research Center in Egypt* 27:43-52.

Pulak, C. "The Cargo of the Uluburun Ship and Evidence for Trade with the Aegean and Beyond." In *Italy and Cyprus in Antiquity, 1500-450 BC: Proceedings of an International Symposium Held at the Italian Acdemy for Advanced Studies in America at Columbia University, November 16-18, 2000*, edited by L. Bonfante and V. Karageorghis, 13-60. Nicosia: Severis Foundation.

Radcliffe-Brown, A.R. 1952. *Structure and Function in Primitive Society, Essays and Addresses*. Glencoe, Ill: The Free Press.

Rakita, G.F.M. and J. Buikstra. 2005. "Introduction" In *Interacting with the dead: perspectives on mortuary archaeology for the new millennium*, edited by G.F.M. Rakita, et al. Gainesville: University Press of Florida.

Saxe, A.A. 1970. :Social Dimensions of Mortuary Practices." Unpublished M.S., Ph.D. dissertation. Ann Arbor: University of Michigan.

Sheratt, A.G. 1981. "Plough and Pastoralism: Aspects of the Secondary Products Revolution." In *Pattern of the past : studies in honour of David Clarke*, edited by I. Hodder, et al., 261-305. New York: Cambridge University Press.

Silverman, H. 2002. "Introduction" In *The Space and Place of Death*, edited by H. Silverman, et al. Arlington, Va: American Anthropological Association.

Sneddon, A.C. 2002. *The Cemeteries at Marki : Using a Looted Landscape to*

Investigate Prehistoric Bronze Age Cyprus. *BAR-IS, 1028*. Oxford: Archaeopress.

South, A.K. 2002. "Late Bronze Age Settlement Patterns in Southern Cyprus: the First Kingdoms?" *Cahier du Centre d'Etudes Chypriotes* 32: 59-72.

South, A.K. and L. Steel. 2001. "The White Slip Sequence at Kalavasos." In *The White Slip Ware of Late Bronze Age Cyprus,* edited by V. Karageorghis, 65-74. Vienna: Verlag der Osterreachische Akademie der Wissenschaften.

Smith, J.S. 1994. "Seals for Sealing in the Late Cypriot Period." Unpublished Ph.D. Dissertaion, Bryn Mawr, PA: Bryn Mawr College.

Steel, L. 2004. *Cyprus Before History: From the Earliest Settlers to the End of the Bronze Age*. London: Duckworth.

Stewart, E., and J.R. Stewart. 1950. *Vounous 1937–1938. Field Report on the Excavations Sponsored by the British School of Archaeology at Athens.* Svenska Institutet i Rom Skrifter XIV. Lund: CWK Gleerup.

Stewart, J.R. 1962. "The Early Cypriote Bronze Age." In *The Swedish Cyprus Expedition.* Vol. 4, part 1A, by P. Dikaios and J.R. Stewart, 203-401. Lund: The Swedish Cyprus Expedition.

Swiny, S. 1980. "Bronze Age Gaming Stones." *RDAC*: 54-78.

----------. 1981. "Bronze Age Settlement Patterns in Southwest Cyprus." *Levant* 13:51-87.

----------. 1985a. "The Cyprus American Archaeological Institute Excavations at Sotira *Kaminoudhia* and the Origins of the Philia Culture." In *Acts of the International Archaeological Symposium: Cyprus Between Orient and Occident*, edited by V. Karagheorghis, 29-44. Nicosia: Department of Antiquities.

----------. 1985b. "Sotira-Kaminoudhia and the Chalcolithic/Early Bronze Age Transition in Cyprus." In *Archaeology in Cyprus, 1960-1985*, edited by V. Karageorghis. Nicosia: A.G. Leventis Foundation.

----------. 1986. *The Kent State University expedition to Episkopi Phaneromeni, Part 2. SIMA* 74. Nicosia: Paul Åströms Förlag.

----------. 1989. "From Round House to Duplex: A Reassessment of Prehistoric Bronze Age Society." In *Early Society in Cyprus*, edited by E.J. Peltenburg, 14-31. Edinburgh: Edinburgh University Press.

Swiny, S., G. Rapp, and E. Herscher, eds. 2003. *Sotira Kaminoudhia : an Early Bronze Age Site in Cyprus*. American Schools of Oriental Research Archaeological Reports 8. Boston: American Schools of Oriental Research.

Tilley, C. 1994 *A Phenomenology of Landscape: Places, Paths, and Monuments.* Providence: Berg.

Todd, I. 1988. "The Middle Bronze Age in the Kalavasos Area." *RDAC:* 133-40.

----------. 1991. "The Vasilikos Valley and the Chalcolithic Period in Cyprus." *BASOR* 282/283: 3-16.

Todd, I. et al. 1987. *Vasilikos Valley Project 6: Excavations at Kalavasos-Tenta I.* Svedalen: Paul Åströms Förlag.

----------. 2004. *Vasilikos Valley Project 9: The Field Survey of the Vasillikos Valley, Vol 1. SIMA 71:9* Svedalen: Paul Åströms Förlag.

----------. 2007. *Vasilikos Valley Project 11: Kalavasos Village Tombs 52-79. SIMA 71:11*. Svedalen: Paul Åströms Förlag.

Tuan, Y.-F. 1979. "Thought and Landscape: The Eye and the Mind's Eye." In *The Interpretation of Ordinary Landscapes*, edited by D.W. Meinig. New York: Oxford University Press.

Tylor, E.B. 1878. *Researches into the Early History of Mankind and the Development of Civilization*. London: J. Murray.

Webb, J.M. 1992. "Funerary Ideology in Bronze Age Cyprus: Toward the Recognition and Analysis of Cypriot Ritual Data." In *Aphieroma sto Vaso Karagiorge*, edited by G. C. Ioannides. Leukosia: Hetaireia Kypriakon Spoudon.

Webb, J.M., and D. Frankel. 1999. "Characterizing the Philia Facies: Material Culture, Chronology, and the Origin of the Bronze Age in Cyprus." *American Journal of Archaeology* 103 (1):3-43.

Webb, J.M. et al. 2008. "Early and Middle Bronze Age Occupation in the Maroni Valley, Cyprus: Surface Survey at Psematismenos-Treloukkas." *RDAC*: 87-104.

Weinberg, S. 1956. "Exploring the Early Bronze Age in Cyprus." *Archaeology* 9:112–

21.

Van Gennep, A. 1960. *The Rites of Passage*. Chicago: University of Chicago Press.

Vermeule, E. and F.Z. Wolsky. 1990. *Toumba tou Skourou: A Bronze Age Potter's Quarter on Morphou Bay in Cyprus.* Cambridge, Mass.: Harvard University Press.